XR-C9100

SERVICE MANUAL

US Model
E Model

Ver 1.1 2001. 08

Model Name Using Similar Mechanism	XR-C8100
Tape Transport Mechanism Type	MG-25D-136

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS (US model)
POWER OUTPUT AND TOTAL HARMONIC DISTORTION
19 watts per channel minimum continuous average power into 4 ohms, 4 channels driven from 20 Hz to 20 kHz with no more than 1 % total harmonic distortion.

Other specifications

Cassette player section

Tape track	4-track 2-channel stereo
Wow and flutter	0.08 % (WRMS)
Frequency response	30 - 20,000 Hz
Signal-to-noise ratio	

Cassette type	Dolby B NR	Dolby C NR	Dolby NR off
TYPE II, IV	67 dB	73 dB	61 dB
TYPE I	64 dB	70 dB	58 dB

Tuner section

FM

Tuning range	US model: 87.5 -107.9 MHz E model: FM tuning interval: 50 kHz / 200 kHz switchable 87.5 - 108.0 MHz (at 50 kHz step) 87.5 - 107.9 MHz (at 200 kHz step)
Antenna terminal	External antenna connector
Intermediate frequency	10.7 MHz
Usable sensitivity	8 dBf
Selectivity	75 dB at 400 kHz
Signal-to-noise ratio	65 dB (stereo), 68 dB (mono)
Harmonic distortion at 1 kHz	0.7% (stereo), 0.4% (mono)
Separation	35 dB at 1 kHz
Frequency response	30 - 15,000 Hz

AM

Tuning range	US model: 530 - 1,710 kHz E model: AM tuning interval: 9 kHz / 10 kHz switchable 531 - 1,602 kHz (at 9 kHz step) 530 - 1,710 kHz (at 10 kHz step)
Antenna terminal	External antenna connector
Intermediate frequency	10.71 MHz / 450 kHz
Sensitivity	30 µV

Power amplifier section

Outputs	Speaker outputs (sure seal connectors)
Speaker impedance	4 - 8 ohms
Maximum power output	45 W × 4 (at 4 ohms)

– Continued on next page –

FM/AM CASSETTE CAR STEREO

9-925-992-12
2001H0400-1
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Sony Corporation
e Vehicle Company
Shinagawa Tec Service Manual Production Group

SONY®

General

Outputs	Line outputs (2) Subwoofer output (1) Power antenna relay control lead Power amplifier control lead Telephone ATT control lead Illumination control lead
Tone controls	Bass ±8 dB at 100 Hz Treble ±8 dB at 10 kHz
Power requirements	12 V DC car battery (negative ground)
Dimensions	Approx. 178 × 50 × 180 mm (7 1/8 × 2 × 7 1/8 in.) (w/h/d)
Mounting dimensions	Approx. 182 × 53 × 160 mm (7 1/4 × 2 1/8 × 6 3/8 in.) (w/h/d)
Mass	Approx. 1.5 kg (3 lb. 5 oz.)
Supplied accessories	Rotary commander RM-X4S (1) Wireless remote RM-X47 (1) (E model) Parts for installation and connections (1 set) Front panel case (1)

Design and specifications are subject to change without notice.

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
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Notes on Chip Component Replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

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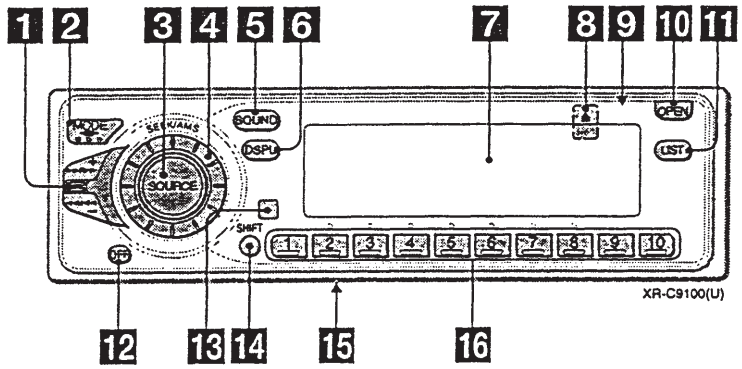
Location of controls



EN

Refer to the pages for details.

1 SEEK/AMS (seek/Automatic Music Sensor/manual search) control 9, 11, 18, 19, 20, 23, 29

2 MODE (◄II►) button

During tape playback:
Playback direction change 8, 9

During tuner reception:
BAND select 10, 11

During CD or MD playback:
CD/MD Unit select 17, 19, 22

During TV reception or Video playback:
TV/Video select 29

3 SOURCE (TAPE/TUNER/CD/MD/TV) button 8, 10, 11, 16, 17, 19, 22, 24, 25, 27, 28, 29, 31

4 Dial (volume/subwoofer volume/bass/treble/left-right/rear-front control) 7, 12, 15, 21, 22, 24, 25, 26, 27, 28

5 SOUND button 15, 24, 25, 26, 27, 28

6 DSPL (display mode change) button 9, 12, 13, 17, 22, 23

7 Display window

8 ⏏ (eject) button (located on the front side of the unit behind the front panel) 8

9 Reset button (located on the front side of the unit behind the front panel) 6

10 OPEN button 6, 8, 33

11 LIST button

Station Memo 12
List-up 13, 23, 30
Disc Memo 21, 22

DSP Custom File 25

12 OFF button 6, 8

13 Sensor for the optional wireless remote

14 SHIFT button
PLAY MODE 9, 10, 11, 18, 19, 20, 21, 23, 24, 25, 29

REP 10, 18

SET UP 7, 16, 17, 28

SHUF 18

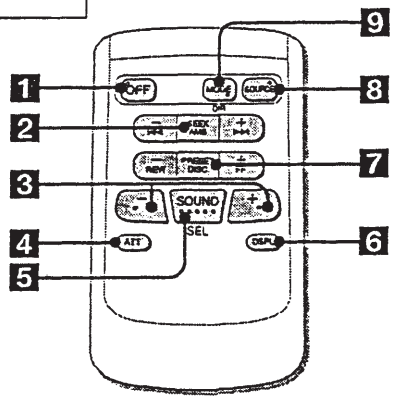
15 POWER SELECT switch (located on the bottom of the unit)
See "POWER SELECT Switch" in the Installation/Connections manual.

16 During radio reception:
Number buttons 11

During CD or MD playback:
Direct disc selection buttons 18

During TV reception:
Number buttons 29

Optional wireless remote (RM-X47)



The buttons of the wireless remote control the same functions as those on this unit.

1 OFF button

2 SEEK/AMS button

3 ⊖ ⊕ buttons

4 ATT button

5 SOUND/SEL button

6 DSPL button

7 PRESET/DISC button
You cannot do manual search and manual tuning with the remote.

8 SOURCE button

9 MODE/DIR button
(MODE) controls the same function on this unit.

When the POWER SELECT switch is set to the ⓑ position, the unit cannot be operated with the wireless remote unless (SOURCE) on the unit is pressed or a cassette is inserted to activate the unit first.

EN

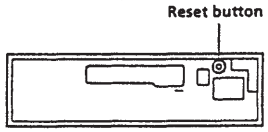
SECTION 1
GENERAL

This section is extracted from instruction manual.

Getting Started

Resetting the unit

Before operating the unit for the first time or after replacing the car battery, you must reset the unit.
Press the reset button with a pointed object, such as a ball-point pen.



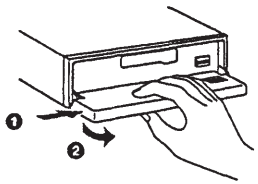
Note
Pressing the reset button will erase the clock and some memorized functions.

Detaching the front panel

You can detach the front panel of this unit to protect the unit from being stolen.

1 Press (OFF).

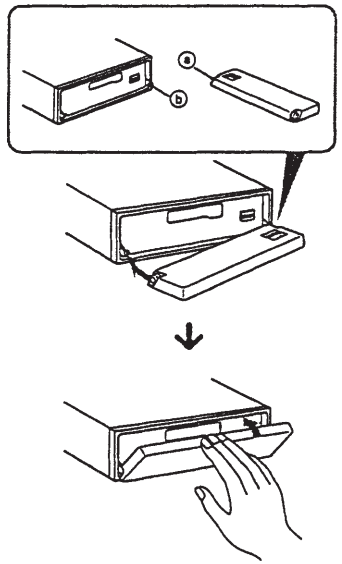
2 Press (OPEN) to open up the front panel, then slide the front panel to the right side, and pull out from the left side of the front panel.



Notes
- *Do not place anything on the inner surface of the front panel.*
- *Be sure not to drop the panel when detaching it from the unit.*
- *If you detach the panel while the unit is still on, the power will turn off automatically to prevent the speakers from being damaged.*
- *When you carry the front panel with you, put it in the supplied front panel case.*

Attaching the front panel

Place the hole ⓐ in the front panel onto the spindle ⓑ on the unit as illustrated, then push the left side in.



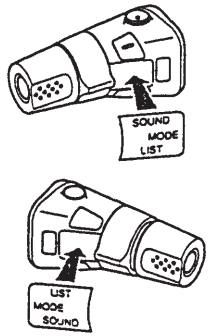
Notes
- *Be sure not to attach the front panel upside down.*
- *Do not press the front panel hard against the unit when attaching it. Press it lightly against the unit.*
- *Do not press hard or put excessive pressure on the display windows of the front panel.*
- *Do not expose the front panel to direct sunlight or heat sources such as hot air ducts, and do not leave it in a humid place. Never leave it on the dashboard of a car parked in direct sunlight where there may be a considerable rise in temperature.*

Caution alarm

If you turn the ignition key switch to the OFF position without removing the front panel, the caution alarm will beep for a few seconds (only when the POWER SELECT switch on the bottom of the unit is set to the Ⓐ position).

Preparing the rotary commander

When you mount the rotary commander, attach the label as shown in the illustration below.

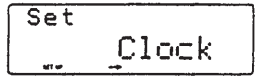


Setting the clock

The clock uses a 12-hour digital indication.

Example: To set the clock to 10:08

1 Press (SHIFT), then press (3) (SET UP).



❶ Press (5) (→).

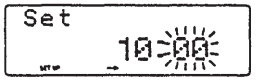
The hour digit flashes.

❷ Set the hour.

to go backward

to go forward

❸ Press (5) (→).

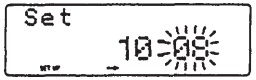


The minute digits flash.

❹ Set the minute.

to go backward

to go forward



2 Press (SHIFT).

The clock starts.

continue to next page →

3 Press SHIFT.
After the mode setting is complete, the display returns to normal playback mode.

Note
If the POWER SELECT switch on the bottom of the unit is set to the B position, turn the power on first, then set the clock.

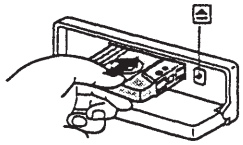
EN

– 5 –

Cassette Player

Listening to a tape

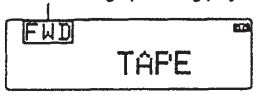
1 **Press OPEN and insert a cassette.**



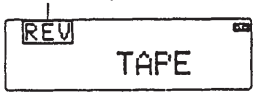
2 **Close the front panel.**
Playback starts automatically.

If a cassette is already inserted, press SOURCE repeatedly until "FWD" or "REV" appears to start playback.

The side facing up is being played.



The side facing down is being played.



Tips
- *To change the tape's playback direction, press MODE (◄II►).*
- *"Metal" appears in the display when you insert a metal or CrO_2 tape (Auto Metal function).*

To	Press
Stop playback	OFF
Eject the cassette	OPEN then ⏏

Fast-winding the tape

During playback, push the SEEK/AMS control up or down and hold.

Fast-forward

Rewind

To start playback during fast-forwarding or rewinding, press MODE.

Locating a specific track
— Automatic Music Sensor (AMS)

You can skip up to nine tracks at one time.

During playback, push the SEEK/AMS control up or down momentarily.

To locate succeeding tracks

To locate preceding tracks

Note
The AMS function may not work when:
- *— the blanks between tracks are shorter than four seconds*
- *— there is noise between tracks*
- *— there are long sections of low volume or quiet sections.*

Changing the display item

Each time you press DSPL, the item changes as follows:

Tape playback → Clock → MOTION DISPLAY* → Tape playback

* *All the items above are scrolled in the display one by one in order.*

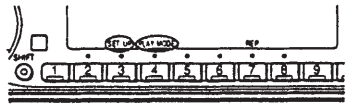
Playing a tape in various modes

You can play the tape in various modes:
- Intro (Intro Scan) lets you play the first 10 seconds of all the tracks.
- NR (Dolby NR) lets you select the Dolby* NR B or C system.
- B. Skip (Blank Skip) skips blanks longer than eight seconds.
- ATA (Automatic Tuner Activation) turns on the tuner automatically while fast-winding the tape.
- Repeat (Repeat Play) repeats the current track.

* *Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol ⧈ are trademarks of Dolby Laboratories Licensing Corporation.*

Searching for the desired track
— Intro scan

1 **Press SHIFT.**
Every time you press SHIFT, only the items you can select light up.



2 **Press 4 (PLAY MODE) repeatedly until "Intro" appears.**
Each time you press 4 (PLAY MODE), the item changes as follows:
Intro → NR → B. Skip → ATA

3 **Press 5 (→) to select "Intro on."**

Intro Scan starts.

4 **Press SHIFT.**

To go back to normal playback mode, select "Intro off" in step 3 above.

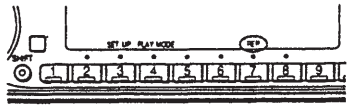
EN

Getting Started/Cassette Player

Playing tracks repeatedly
— Repeat Play

1 During playback, press SHIFT.

2 Press 7 (REP) repeatedly until "Repeat" appears.



Repeat Play starts.

3 Press SHIFT.

To go back to normal playback mode, select "Repeat off" in step 2 above.

Radio

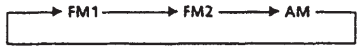
Memorizing stations automatically
— Best Tuning Memory (BTM)

The unit selects the stations with the strongest signals and memorizes them in the order of their frequencies. You can store up to 10 stations on each band (FM1, FM2, and AM).

Caution
When tuning in stations while driving, use Best Tuning Memory to prevent accidents.

1 Press SOURCE repeatedly to select the tuner.
Each time you press SOURCE, the source changes as follows:
TAPE ⟷ TUNER

2 Press MODE repeatedly to select the band.
Each time you press MODE, the band changes as follows:



3 Press SHIFT, then press 4 (PLAY MODE) repeatedly until "B.T.M" appears.

4 Press 5 (→).
The unit stores stations in the order of their frequencies on the number buttons.
The setting is stored with a beep sound.

5 Press SHIFT.

Notes
- *The unit does not store stations with weak signals. If only a few stations can be received, some number buttons will retain their former setting.*
- *When a number is indicated in the display, the unit starts storing stations from the one currently displayed.*

Memorizing only the desired stations

You can preset up to 20 FM stations (10 for FM1 and 10 for FM2) and up to 10 AM stations in the order of your choice.

1 Press SOURCE repeatedly to select the tuner.

2 Press MODE repeatedly to select the band (FM1, FM2, or AM).

3 Push the SEEK/AMS control up or down to tune in the station you want to store on the number button.

4 Press and hold the desired number button (1 to 10) until "MEM" appears.
The number button indication appears in the display.

Note
If you try to store another station on the same number button, the previously stored station will be erased.

Receiving the memorized stations

1 Press SOURCE repeatedly to select the tuner.

2 Press MODE repeatedly to select the band (FM1, FM2, or AM).

3 Press the number button (1 to 10) momentarily where the desired station is stored.

If you cannot tune in a preset station

Push the SEEK/AMS control up or down momentarily to search for the station (automatic tuning).
Scanning stops when the unit receives a station. Push the SEEK/AMS control up or down repeatedly until the desired station is received.

Note
If the automatic tuning stops too frequently, press SHIFT, then press 4 (PLAY MODE) repeatedly until "Local" (local seek mode) is displayed. Then press 5 (→) to select "Local on." Press SHIFT. Only the stations with relatively strong signals will be tuned in.

Tip
If you know the frequency of the station you want to listen to, push the SEEK/AMS control up or down and hold until the desired frequency appears (manual tuning).

If FM stereo reception is poor
— Monaural Mode

1 Press SHIFT, then press 4 (PLAY MODE) repeatedly until "Mono" appears.

2 Press 5 (→) repeatedly until "Mono on" appears.
The sound improves, but becomes monaural ("ST" disappears).

3 Press SHIFT.

To go back to normal mode, select "Mono off" in step 2 above.

If interference occurs during FM reception

If there is interference from neighboring stations, follow the steps below and select "Narrow". If interference is not a problem, select "Wide" to maximize signal reception and improve sound quality or "IF Auto "to switch between "Narrow" and "Wide" automatically.

1 Press SHIFT during FM reception.

2 Press 4 (PLAY MODE) repeatedly until "IF Auto" appears.

3 Press 5 (→) repeatedly to select desired setting

4 Press SHIFT.

Storing the station names
— Station Memo

You can assign a name to each radio station and store it in memory. The name of the station currently tuned in appears in the display. You can assign a name of up to eight characters per station.

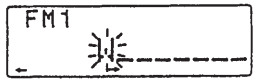
Storing the station names

1 Tune in a station whose name you want to store.

2 Press (LIST) for two seconds.

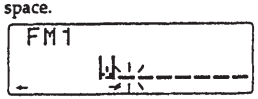
3 Enter the characters.

❶ Rotate the dial clockwise to select the desired characters.
(A → B → C → ··· Z → 0 → 1 → 2 → ··· 9 → + → − → * → / → \ → > → < → . → _)



If you rotate the dial counterclockwise, the characters appear in the reverse order.
If you want to put a blank space between characters, select "_" (under-bar).

❷ Press (5) (→) after locating the desired character.
The flashing cursor moves to the next space.



If you press (2) (←), the flashing cursor moves to the left.

❸ Repeat steps ❶ and ❷ to enter the entire name.

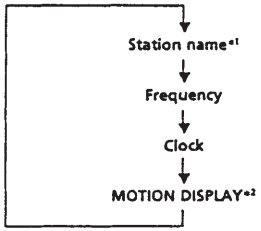
4 To return to the normal radio reception, press (LIST) for two seconds.

Tip
To erase or correct a name, enter "_" (under-bar) for each character.

Displaying the station name

Press (DSPL) during radio reception.

Each time you press (DSPL), the item changes as follows:



*1 *If the station name of a station is not stored, "NO NAME" appears in the display for one second.*
*2 *All the items above are scrolled in the display one by one in order.*

Erasing the station name

1 Tune in any station and press (LIST) for two seconds.

2 Press (DSPL) for two seconds.

3 Rotate the dial to select the name that you want to erase.

4 Press (6) (ENTER) for two seconds.
The name is erased.
Repeat steps 3 and 4 if you want to erase other names.

5 Press (LIST) for two seconds.
The unit returns to the normal radio reception mode.

Locating a station by name — List-up

1 Press (LIST) momentarily.
The name assigned to the station currently playing appears in the display.

2 Press (LIST) repeatedly until you find the desired station.

3 Press (6) (ENTER) to tune in the desired station.

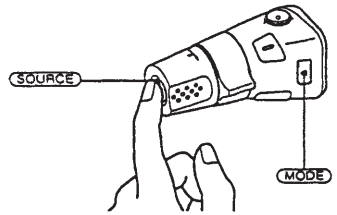
Note
Once the station name or frequency has been displayed for five seconds, the display goes back to its normal mode. To turn off the display, press (DSPL).

Other Functions

Using the rotary commander

The rotary commander works by pressing buttons and/or rotating controls.
You can control an optional CD or MD unit with the rotary commander.

By pressing buttons (the SOURCE and MODE buttons)



Each time you press (SOURCE), the source changes as follows:

TAPE → TV* → TUNER → CD → MD

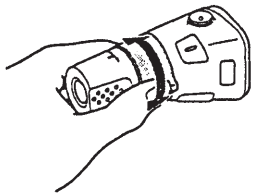
* *When an optional TV tuner or video is connected.*

Pressing (MODE) changes the operation in the following ways;

- Tape playback direction
- Tuner : FM1 → FM2 → AM
- CD unit : CD1 → CD2 → ...
- MD unit : MD1 → MD2 → ...
- TV/Video : TV → VIDEO1 → VIDEO2 → ...

Tip
When the POWER SELECT switch is set to position ❸, you can turn on this unit by pressing (SOURCE) on the rotary commander.

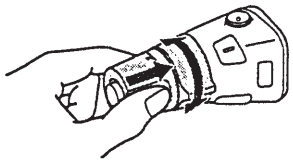
By rotating the control (the SEEK/ AMS control)



Rotate the control momentarily and release it to:

- Locate the beginnings of the tracks on the tape. Rotate and hold the control, and release it to fast-wind the tape. To playback, rotate and hold the control again, and release it.
- Locate a specific track on a disc. Rotate and hold the control until you locate the specific point in a track, then release it to start playback.
- Tune in stations automatically. Rotate and hold the control to tune in a specific station.

By pushing in and rotating the control (the PRESET/DISC control)

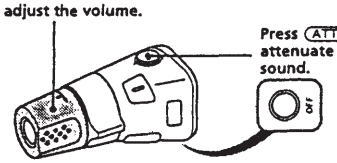


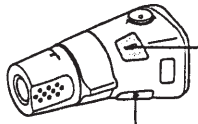
Push in and rotate the control to:

- Receive the stations memorized on the number buttons.
- Change the disc.
- Fast-winds the tape.

Other operations

Rotate the VOL control to adjust the volume.



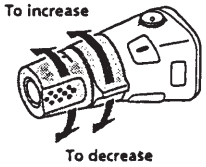


Press (LIST) to:

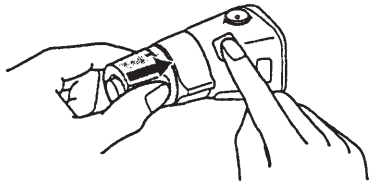
- **Display the memorized names.**
- **Display the program type.**

Changing the operative direction

The operative direction of controls is factory-set as in the illustration below.



If you need to mount the rotary commander on the right side of the steering column, you can reverse the operative direction.



Press (SOUND) for two seconds while pushing the VOL control.

Tip

You can control the operative direction of controls with the unit (page 15).

Adjusting the sound characteristics

You can adjust the bass, treble, balance and fader.
You can store the bass and treble levels independently for each source.

1 Select the item you want to adjust by pressing (SOUND) repeatedly.

VOL (volume) → SUB (subwoofer volume) → BAS (bass) → TRE (treble) → BAL (left-right) → FAD (front-rear)

2 Adjust the selected item by rotating the dial.

Adjust within three seconds after selecting the item. (After three seconds, the dial function reverts to volume control.)

Attenuating the sound

Press (ATT) on the rotary commander or wireless remote.
"ATT on" flashes momentarily.

To restore the previous volume level, press (ATT) again.

Tip

The unit decreases the volume automatically when a telephone call comes in (Telephone ATT function).

Changing the sound and display settings

The follow items can be set:

- Clock (page 7).
- D.Info (Dual Information) – to display the clock and the play mode at the same time (ON) or to display the information alternately (OFF).
- Amber/Green – to change the illumination color to amber or green.
- Dimmer – to change the brightness of the display.
  - — Select "Auto" to dim the display only when you turn the lights on.
  - — Select "on" to dim the display.
  - — Select "off" to deactivate Dimmer.
- Contrast – to adjust the contrast if the indications in the display are not recognizable because of the unit's installed position.
- Voice guide function for vocalized comments.
  - — Select "Voice 1" to minimize the volume of the guide.
  - — Select "Voice 2" to be louder the volume than "Voice 1."
  - — Select "Voice 3" to maximize the volume of the guide.
  - — Select "Voice off" to deactivate Voice guide.
- Beep – to turn on or off the beeps.
- RM (Rotary Commander) – to change the operative direction of the controls of the rotary commander.
  - — Select "norm" to use the rotary commander as the factory-set position.
  - — Select "rev" when you mount the rotary commander on the right side of the steering column.
- BBE – to enjoy bass and treble even at low volume. The bass and treble will be reinforced.
  - — Select "BBE 1" to reinforce the bass and treble.
  - — Select "BBE 2" to reinforce the bass and treble more effectively than "BBE 1".
  - — Select "BBE off" to deactivate BBE.
- LPF (Low Pass Filter)
- A.Scrl (Auto Scroll) (page 17).

1 Press (SHIFT).

2 Press ③ (SET UP) repeatedly until the desired item appears.

Each time you press ③ (SET UP), the item changes as follows:

Clock → D.Info* → Amber/Green → Dimmer → Contrast → Voice* → Beep → RM → BBE* → LPF* → A.Scrl*

* *When the radio is off, or when there is no tape, CD, or MD being played, these items will not appear.*

Notes
- *The displayed item will differ depending on the source.*
- *If an optional digital preamplifier is connected to the unit, BBE and Voice Guide do not work.*

3 Press ⑤ (→) to select the desired setting (for example: on or off).
For the "Contrast" setting, pressing ⑤ (→) makes the contrast higher, and pressing ② (←) makes the contrast lower.

4 Press (SHIFT).
After the mode setting is complete, the display returns to normal playback mode.

Adjusting the frequency of the subwoofer(s)

To match the characteristics of the connected subwoofer(s), you can cut out the unwanted high and middle frequency signals entering the subwoofer(s). By setting the cut-off frequency, the subwoofer(s) will output only low frequency signals for a clearer sound image.

1 Press (SOURCE) to select a source (radio, tape, CD, or MD).

2 Press (SHIFT), then press ③ (SET UP) repeatedly until "LPF" appears.

3 Press ⑤ (→) or ② (←) repeatedly to select desired setting.

Each time you press ⑤ (→) or ② (←), the cut-off frequency in the display changes as follows:

LPF 120 Hz ⟷ LPF 80 Hz ⟷ LPF off

4 Press (SHIFT).
When the frequency setting is complete, the display returns to the normal playback mode.

You can control up to 7 CD and MD units with this unit.
If you connect an optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you play a CD TEXT disc.

Playing a CD or MD

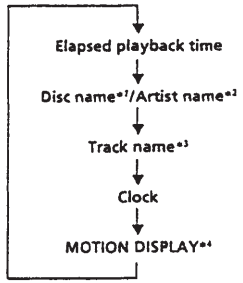
1 Press (SOURCE) repeatedly to select the CD or MD.

2 Press (MODE) until the desired unit appears.
CD/MD playback starts.

When a CD/MD unit is connected, all the tracks play from the beginning.

Changing the display item

Each time you press (DSPL) during CD, CD TEXT, or MD playback, the item changes as follows:



*1 *If you have not labeled the disc or if there is no disc name prerecorded on the MD, "NO D.Name" appears in the display.*
*2 *If you play a CD TEXT disc, the artist name appears in the display after the disc name. (Only for CD TEXT discs with the artist name.)*
*3 *If the track name of a CD TEXT disc or MD is not prerecorded, "NO T.Name" appears in the display.*
*4 *All the items above are scrolled in the display one by one in order.*

You can label CD and CD TEXT discs with a personalized name using the disc memo function, refer to "Labeling a CD" (page 21). However, if you use personalized labels, they will always take priority over the original CD TEXT information when such information is displayed.

Tip
If the name of the MD or CD TEXT disc is too long, you can scroll it across the display by pressing (SHIFT), then ② (←).

Automatically scrolling a disc name — Auto Scroll

If the disc name/artist name or track name on a CD TEXT disc or MD exceeds 10 characters and the Auto Scroll function is on, information automatically scrolls on the display as follows:
- *The disc name appears when the disc has changed (if the disc name is selected).*
- *The track name appears when the track has changed (if the track name is selected).*

If you press (DSPL) to change the display item, the disc or track name of the MD or CD TEXT disc is scrolled automatically whether you set the function on or off.

1 During playback, press (SHIFT).

2 Press ③ (SET UP) repeatedly until "A.Scrl" appears.

3 Press ⑤ (→) to select "A.Scrl on."

4 Press (SHIFT)

To cancel Auto Scroll, select "A.Scrl off" in step 2 above.

Note
For some CD TEXT discs with extremely many characters, the following cases may happen:
— Some of the characters are not displayed
— Auto Scroll does not work.

Locating a specific track
— Automatic Music Sensor (AMS)

During playback, push the SEEK/AMS control up or down once for each track you want to skip.

To locate succeeding tracks

To locate preceding tracks

Locating a specific point in a track
— Manual Search

During playback, push the SEEK/AMS control up or down and hold. Release when you have found the desired point.

To search forward

To search backward

Locating a disc by disc number
— Direct Disc Selection

Press the number button that corresponds with the desired disc number.
The desired disc in the current changer begins its playback.

Scanning the tracks
— Intro Scan

You can play the first 10 seconds of all the tracks on the current disc.

1 During playback, press SHIFT, then press 4 (PLAY MODE) repeatedly until "Intro" appears.

2 Press 5 (→) to select "Intro on."
Intro Scan starts.

3 Press SHIFT.

To go back to normal playback mode, select "Intro off" in step 2 above.

Playing tracks repeatedly
— Repeat Play

You can select:
- Repeat 1 – to repeat a track.
- Repeat 2 – to repeat a disc.

1 During playback, press SHIFT.

2 Press 7 (REP) repeatedly until the desired setting appears.

Repeat 1 → Repeat 2 → Repeat off →

Repeat Play starts.

3 Press SHIFT.

To return to normal playback mode, select "Repeat off" in step 2 above.

Playing tracks in random order — Shuffle Play

You can select:
- Shuf 1 – to play the tracks on the current disc in random order.
- Shuf All – to play all the tracks in random order.

1 During playback, press SHIFT.

2 Press 8 (SHUF) repeatedly until the desired setting appears.

Shuf 1 → Shuf All → Shuf off →

Shuffle Play starts.

3 Press SHIFT.

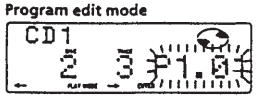
To go back to normal playback mode, select "Shuf off" in step 2 above.

Creating a program
— Program Memory (CD/MD unit with the program memory function)

You can play tracks in any order of your choice by creating and storing programs in the unit's memory. You can make two programs: Program 1 and Program 2. You can select up to 12 tracks for each program. You can store the programs in the memory.

1 Press SHIFT, then press 4 (PLAY MODE) for two seconds.

Program edit mode



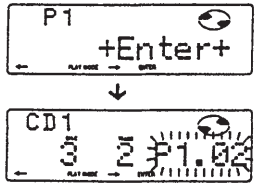
"P 1" indicates Program 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press 4 (PLAY MODE) to display "P 1" above.

To select Program 2, press 5 (→) repeatedly until "P 2" appears.

2 Select the track you want.
❶ Press SOURCE repeatedly to select CD or MD.
❷ Press MODE repeatedly to select the unit.
❸ Press SHIFT, then press the number button to select the disc.
❹ Press SHIFT.
❺ Push the SEEK/AMS control up or down to select the track.

3 Press 6 (ENTER) momentarily.



4 To continue entering tracks, repeat steps 2 and 3.

5 When you finish entering the tracks, press 4 (PLAY MODE) for two seconds.

6 Press SHIFT.

Notes
- *"**Wait**" appears in the display while the unit is reading the data, or if a disc has not been put into the unit.*
- *"*Mem Full*" appears in the display when you try to enter more than 12 tracks into a program.*

Playing the stored program
Changing the disc order in the unit will not affect the program memory play.

You can select:
- PGM 1 to – play Program 1.
- PGM 2 to – play Program 2.
- PGM 1+2 – to play Programs 1 and 2.

1 Press SHIFT.

2 Press 4 (PLAY MODE) repeatedly until "PGM" appears.

3 Press 5 (→) repeatedly until the desired program appears.

Program 1 playback

Program 2 playback

Programs 1 and 2 playback

Normal playback

Program Play starts.

4 Press SHIFT.

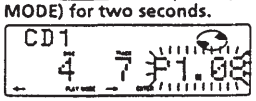
To return to normal playback mode, select "PGM off" in step 3 above.

Notes

- *If you press a number button during program memory play, program memory play is interrupted, and playback of the selected disc starts.*
- *"NO Data" appears in the display if no track is stored in the program.*
- *If a track stored into the program memory is not in the disc magazine, the track will be skipped.*
- *When the disc magazine contains no tracks stored into the program memory, or when the program information has not been loaded yet, "Not ready" appears.*

Erasing an entire program

1 Press SHIFT, then press ④ (PLAY MODE) for two seconds.



"P 1" shows Program 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press ④ (PLAY MODE) to display "P 1" above.

2 Press ② (←) repeatedly until "DEL" appears.

To erase Program 2, press ⑤ (→) repeatedly until "PGM 2" appears.

3 Press ⑥ (ENTER) for two seconds.

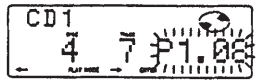
The entire program is erased.

4 When you finish erasing the programs, press ④ (PLAY MODE) for two seconds.

5 Press SHIFT.

Adding tracks to a program

1 Press SHIFT, then press ④ (PLAY MODE) for two seconds.

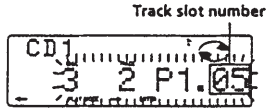


"P 1" shows Program 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press ④ (PLAY MODE) to display "P 1" above.

To select Program 2, press ⑤ (→) repeatedly until "P 2" appears.

2 Press ② (←) or ⑤ (→) to select the track slot number where you want to insert a track.



3 Push the SEEK/AMS control up or down to select the track you want to insert.

4 Press ⑥ (ENTER) momentarily to enter the track.
The current track in that slot number and the succeeding tracks shift down.
To continue inserting tracks, repeat steps 2 through 4.

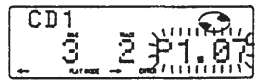
Note
*Once all 12 slots have been filled, "*Mem Full*" appears in the display, and you cannot insert more tracks.*

5 When you finish inserting tracks, press ④ (PLAY MODE) for two seconds.

6 Press SHIFT.

Erasing tracks in a program

1 Press SHIFT, then press ④ (PLAY MODE) for two seconds.

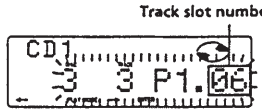


"P 1" shows Program 1 is selected.

If you have labelled the disc, the bank edit mode appears. Press ④ (PLAY MODE) to display "P 1" above.

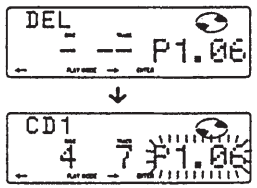
To select Program 2, press ⑤ (→) repeatedly until "P 2" appears.

2 Press ② (←) or ⑤ (→) to select the track you want to erase.



The track currently registered in slot 6 of Program 1.

3 Press ⑥ (ENTER) for two seconds.
When you erase a track from a slot number, the succeeding tracks shift up to fill the gap.



4 To continue erasing tracks, repeat steps 2 and 3.

5 When you finish erasing tracks, press ④ (PLAY MODE) for two seconds.

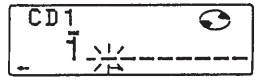
6 Press SHIFT.

Labeling a CD — Disc Memo

(CD unit with the custom file function)

You can label each disc with a personalized name. You can enter up to eight characters for a disc. If you label a CD, you can locate the disc by name and select the specific tracks for playback (page 23).

1 Play the CD and press LIST for two seconds.

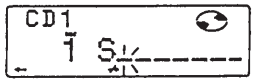


2 Enter the characters.

❶ Rotate the dial clockwise to select the desired characters.
(A → B → C → ··· Z → 0 → 1 → 2 → ··· 9 → + → − → * → / → \ → > → < → . → _)

If you rotate the dial counterclockwise, the characters will appear in reverse order.
If you want to put a blank space between characters, select "_" (under-bar).

❷ Press ⑤ (→) after locating the desired character.
The flashing cursor moves to the next space.



If you press ② (←), the flashing cursor moves to the left.

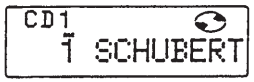
❸ Repeat steps ❶ and ❷ to enter the entire name.

3 To return to normal CD playback mode, press LIST for two seconds.

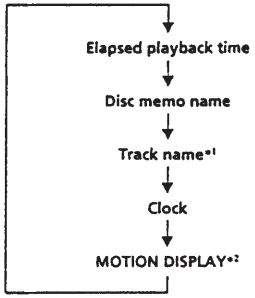
Tip
To erase or correct a name enter "_" (under-bar) for each character.

Displaying the disc memo name

Press (DSPL) during CD or CD TEXT disc playback.



Each time you press (DSPL) during CD or CD TEXT playback, the item changes as follows:



*1 *If you connect an optional CD unit with the CD TEXT function, the CD TEXT information will appear in the display when you playback a CD TEXT disc.*

*2 *All the items above are scrolled in the display one by one in order.*

Erasing the disc memo

1 Press (SOURCE) repeatedly to select CD.

2 Press (MODE) repeatedly to select the CD unit.

3 Press (LIST) for two seconds.

4 Press (DSPL) for two seconds.

5 Rotate the dial to select the name you want to erase.

6 Press (6) (ENTER) for two seconds.
The name is erased.
Repeat steps 5 and 6 if you want to erase other names.

7 Press (LIST) for two seconds.
The unit returns to normal CD playback mode.

Note
When the personalized label is erased, the original CD TEXT information will appear in the display.

Locating a disc by name

— List-up (CD unit with the custom file function or MD unit)

You can use this function for discs that have been assigned a custom name. For more information on disc names, refer to "Labeling a CD" (page 21).

1 Press (LIST) momentarily.
The name assigned to the current disc appears in the display.

When you assign a disc memo label to a CD TEXT disc, it takes priority over the original CD TEXT information.

2 Press (LIST) repeatedly until you find the desired disc.

3 Press (6) (ENTER) to play back the disc.

Notes
- *After a disc name has been displayed for five seconds, the display goes back to normal playback mode. To turn off the display, press (DSPL).*
- *The track names are not displayed during MD or CD TEXT disc playback.*
- *If there are no discs in the magazine, "NO Disc" appears in the display.*
- *If a disc has not been assigned a custom file, "********" appears in the display.*
- *If the disc information has not been read by the unit, "?" appears in the display. To load a disc, first press the number button, then choose the disc that has not been loaded.*
- *The information appears only in upper case. There are also some letters which cannot be displayed (during MD or CD TEXT disc playback).*

Selecting specific tracks for playback

— Bank
(CD unit with the custom file function)

If you label the disc, you can set the unit to skip tracks and play only the tracks you want.

1 Start playing the disc and press (SHIFT). Then press (4) (PLAY MODE) for two seconds.
Bank edit mode.

Note
If you have not labeled the disc, the bank edit mode does not appear and the program edit mode appears. To go back to normal playback mode, press (4) (PLAY MODE) for two seconds.

2 Push the SEEK/AMS control up or down to select the track number you want to skip and press (6) (ENTER).

The indication changes from "Play" to "Skip." To return the indication to"Play," press (6) (ENTER) again.

3 Repeat step 2 to set "Play" or "Skip" mode for all the tracks.

4 Press (4) (PLAY MODE) for two seconds.
The unit returns to normal CD playback mode.

5 Press (SHIFT).

Notes
- *You can set the "Play" and "Skip" mode for up to 24 tracks.*
- *You cannot set the "Skip" mode for all the tracks.*

Playing the specific tracks only

You can select:
- Bank on – to play the tracks with the "Play" setting.
- Bank inv (Inverse) – to play the tracks with the "Skip" setting.

1 During playback, press (SHIFT), then press (4) (PLAY MODE) repeatedly until "Bank" appears.

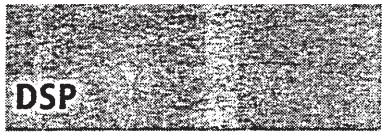
2 Press (5) (→) repeatedly until the desired setting appears.

→ Bank on → Bank inv → Bank off →

Playback starts from the track following the current one.

3 Press (SHIFT).

To return to normal play mode, select "Bank off" in step 2 above.



The optional XDP-U50D lets you add some effects to the sound field of the currently selected source.

Selecting a surround menu

You can select a desired surround menu to best fit the audio source. The following menus can simulate different sound fields and enhance the sound so that you feel as if you are in a live concert.

Surround menu

HALL	Concert hall
JAZZ	Jazz club
DISCO	Disco with thick walls
THEATER	Movie theater
PARK	Big open space
LIVE	Live concert
OPERA	Opera house
CHURCH	Church/chapel with a lot of reverberation
STADIUM	Open-air concert in a stadium
CELLAR	Cellar with a lot of reverberation
DEFEAT	Normal sound without any DSP effects

1 Press (SOURCE) to select a source (tuner, tape, CD, or MD).

2 Press (SOUND) repeatedly until "SUR" appears.

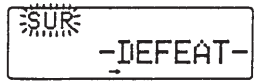
3 Rotate the dial to select the desired surround menu.
The surround menu appears in the order shown above.

After three seconds, the display returns to the normal playback mode.

Adjusting the effect level

1 Press (SOURCE) to select a source (tuner, tape, CD or MD).

2 Press (SOUND) for two seconds.



3 Rotate the dial to select until the desired surround menu appears.

4 Press (5) (→).

5 Rotate the dial to adjust the level.
You can adjust the level from 0 to 100%.
Increase the level to enhance the effect.

6 Press (SOUND) for two seconds.

Storing a surround effect onto CDs

— Digital Signal Processor (DSP) Custom File (CD unit the with custom file function)

Once you have registered the desired surround menu onto the discs, you can enjoy the same surround menu every time you play them. (Only when you have labeled a disc by the Custom File function.)

1 Press (LIST) for two seconds.

2 Press (LIST) until the surround menu appears.

DSP custom file mode

3 Rotate the dial to select the desired surround menu.

4 Press (LIST) for two seconds.
After the effect setting is complete, the display returns to the normal playback mode.

Playing the disc with the stored surround menu

1 Press (SHIFT), then press (4) (PLAY MODE) repeatedly until "D.File" appears.

2 Press (5) (→) to select "D.File on."
After five seconds, the display returns to normal playback mode.

3 Press (SHIFT).

To cancel to play the disc with stored surround menu, select "D.File off" in step 2 above.

Changing the stored surround effect

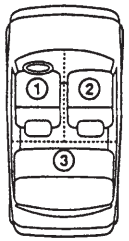
Play the disc whose surround mode you want to change, and follow the steps of "Storing the surround effect onto the CDs."

Erasing the stored surround effect

Select "DEFEAT" in step 3 of "Storing the surround effect onto the CDs."

Selecting the listening position

You can set a delayed time for the sound to reach the listeners from the speakers.
In this way, the unit can simulate a natural sound field so that you feel as if you are in the center of the sound field no matter where you sit in the car.



Display window	Center of sound field
LP1 All	Normal setting (① + ② + ③)
LP2 Front	Front part (① + ②)
LP3 Front R	Right front (②)
LP4 Front L	Left front (①)
LP5 Rear	Rear part (③)

1 Press (SOUND) momentarily until "LP1" appears.

2 Rotate the dial to select the desired listening position.
The listening positions appear in the order shown above.

After three seconds, the display returns to the normal playback mode.

Adjusting the listening position

1 Press (SOUND) for two seconds.

2 Press (SOUND) repeatedly until the desired listening position appears.

3 Press ⑤ (→).

4 Rotate the dial to adjust the center of the sound field to the left or right. Then set the center of the sound field.

Center moves to the L (left).

Center moves to the R (right).

5 Press ⑤ (→).

6 Rotate the dial to adjust the center of the sound field to the front or rear.

Center moves to the R (rear).

Center moves to the F (front).

7 Press (SOUND) for two seconds.
When the effect setting is complete, the normal playback mode appears.

Adjusting the fader (FAD)

Normally, with the DSP mode on, the volume of the output sound from the rear speakers is lowered automatically to improve the efficiency of the listening position setting. If you want to raise the rear speaker volume, adjust the fader.

1 Follow steps 1 to 3 of "Selecting a surround menu" (page 24).

2 Press (SOUND) repeatedly until "FAD" appears.

3 Rotate the dial to adjust the fader.

Decreases front speaker volume

Increases front speaker volume

After three seconds, the display returns to the normal playback mode.

Adjusting the volume of the subwoofer(s)

1 Press (SOURCE) to select a source (tuner, tape, CD, or MD).

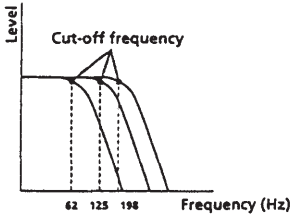
2 Press (SOUND) repeatedly until "SUB" appears.

3 Rotate the dial to adjust the volume.
After three seconds, the display returns to the normal playback mode.

Tip
When you rotate the dial to turn the volume all the way down, "Sub ATT" appears and the cut-off frequency of the subwoofer is disabled.

Adjusting the frequency of the subwoofer(s)

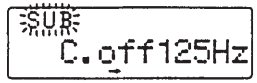
To match the characteristics of the connected subwoofer(s), you can cut out the unwanted high and middle frequency signals entering the subwoofer(s). By setting the cut-off frequency (see the diagram below), the subwoofer(s) will output only low frequency signals so you can get a clearer sound image.



1 Press (SOURCE) to select a source (tuner, tape, CD, or MD).

2 Press (SOUND) for two seconds.

3 Press (SOUND) repeatedly until "SUB" appears.



4 Rotate the dial to select the desired cut-off frequency.
The cut-off frequency in the display changes as follows.

62 → 78 → 99 → 125* → 157 → 198 Hz
* *Factory-set frequency*

5 Press (SOUND) for two seconds.
After the frequency setting is complete, the display returns to the normal playback mode.

Adjusting the volume of the bass and treble

You can adjust the volume of the bass and treble to best fit the acoustic characteristics inside your car.

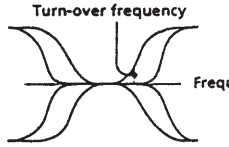
1 Press (SOURCE) to select a source (tuner, tape, CD, or MD).

2 Press (SOUND) repeatedly until "BAS" or "TRE" appears.

3 Rotate the dial to adjust the volume.
After three seconds, the display returns to the normal playback mode.

Adjusting the turn-over frequency

You can adjust the bass and treble turn-over frequencies.

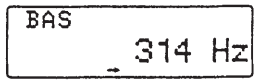


1 Press (SOURCE) to select a source (tuner, tape, CD, or MD).

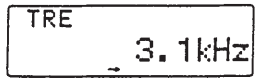
2 Press (SOUND) for two seconds.

3 Press (SOUND) repeatedly until "BAS" or "TRE" appears.

Bass adjusting mode



Treble adjusting mode



4 Rotate the dial to select the turn-over frequency.
The turn-over frequencies change as follows:

Bass:
198 Hz → 250 Hz → 314 Hz* → 396 Hz

Treble:
2.0 kHz → 3.1 kHz* → 4.0 kHz → 5.0 kHz

* *Factory-set frequency*

5 Press (SOUND) for two seconds.
The display returns to the normal playback mode.

Listening to each program source in its registered surround menu

— Last Sound Memory (LSM)

Each time you return to the same source, you can hear the same surround effect registerd for that source, even after changing the program source or turning the unit off and then on again.

Changing the line output level

You can change the line output level if you hear distortion or other noise.

1 Press (SHIFT), then press (3) (SET UP) until "Lout" appears.

2 Press (5) (→) to select the desired setting (–10 dB or –16 dB).

3 Press (SHIFT).

TV/Video

You can connect an optional TV tuner and TV monitor to this unit.

Watching the TV

1 Press (SOURCE) repeatedly until "TV" appears.

2 Push the SEEK/AMS control up or down to select the desired TV band.

Watching a video

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press (MODE) repeatedly to select "Video 1."
Play back the video.

Note
"Video 2" appears if the VIDEO 2 terminal of the TV monitor is selected.

Memorizing TV channels automatically

The unit selects the TV channels with the strongest signals and memorizes them in the order of their frequency.

Caution
When tuning in a station while driving, use Best Tuning Memory to prevent accidents.

1 Press (SOURCE) repeatedly until "TV" appears.

2 Press (SHIFT), then press (4) (PLAY MODE) repeatedly until "Auto mem" appears.

3 Press (5) (→).
The unit stores TV channels in the order of their frequencies on the number buttons.
The setting is stored with a beep sound.

4 Press (SHIFT).

Notes
- *The unit does not store TV channels with weak signals. If only a few TV channels can be received, some number buttons will remain empty.*
- *When a preset number is indicated in the display, the unit starts storing TV channels from the one currently displayed.*

Memorizing only the desired TV channels

You can store up to 10 channels on the number buttons in the order of your choice.

1 Press (SOURCE) repeatedly until "TV" appears.

2 Push the SEEK/AMS control up or down to tune in the TV program you want to store on each number button.

3 Keep the desired number button ((1) to (10)) pressed until you hear a beep tone.
The number button indication appears in the display.

Note
If you try to store another program on the same number button, the previously stored program will be erased.

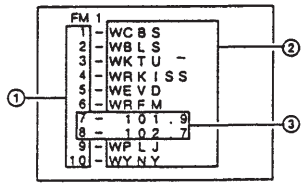
Storing the TV channel names

Follow the steps in "Storing the station names" (page 12).

Displaying the TV or radio station names

Press LIST momentarily during TV or radio reception.

Example: When receiving the FM1 band



① Preset number
② Stored station names
③ Frequencies*

* *If the name of a station is not stored, the frequency of that station will be displayed instead.*

Notes
- *It may take some time before all indications appear in the display.*
- *The TV program does not appear during list display.*
- *The contents of the preset memory cannot be listed when the unit is in the simultaneous play mode.*

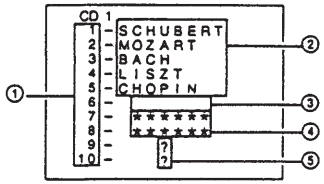
Turning off the display

During radio reception, press LIST again.
During TV reception, the list display on the TV monitor will automatically turn off after a few seconds.

Displaying the information stored on discs

Press LIST momentarily during CD/MD playback.

Example: When CD unit 1 is selected.



① Disc numbers
② Titles stored as custom files
③ No disc is loaded*1
④ No stored titles*2
⑤ TOC information has not been identified yet*3

*1 *A blank space displayed next to a disc number represents empty slots in the disc magazine.*
*2 *If a title is not registered in the custom file, "******" is displayed.*
*3 *If the disc information has not been read yet, "?" is displayed.*

Notes
- *It may take some time until all indications appear in the display.*
- *The TV program does not appear during list display.*
- *The contents of the preset memory cannot be listed when the unit is in the simultaneous play mode.*

Turning off the display

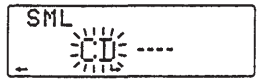
Press LIST again.

Watching the TV or video while listening to a tape, CD or MD — Simultaneous Play

The simultaneous play function does not work while you are listening to the radio.

1 Press SOURCE for two seconds.

2 Press ② (←).



3 Press SOURCE repeatedly to select a tape, CD or MD.

4 Press ⑤ (→).

5 Press SOURCE repeatedly to select a TV or video.

6 Press SOURCE for two seconds.
Simultaneous Play starts.

If you are already watching the TV or video and want to listen to a tape, CD, or MD with it, follow the same above steps except press ⑤ (→) in step 2 and press ② (←) in step 4.

Returning to normal mode

To cancel the CD or MD, follow the steps above and select "– –" in step 3.

To cancel the TV or video, follow the steps above and select "– –" in step 5.

Notes
If you press the EJECT button on a CD/MD unit while the unit is in simultaneous play mode, Simultaneous Play is canceled.

Connections

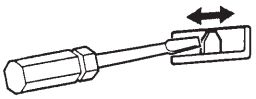
Caution

- This unit is designed for negative ground 12 V DC operation only.
- Before making connections, disconnect the ground terminal of the car battery to avoid short circuits.
- Connect the **yellow** and **red** power input leads only after all other leads have been connected.
- Be sure to connect the red power input lead to the positive 12 V power terminal which is energized when the ignition key is in the accessory position.
- **Run all ground wires to a common ground point.**
- Connect the yellow cord to a free car circuit rated higher than the unit's fuse rating. If you connect this unit in series with other stereo components, the car circuit they are connected to must be rated higher than the sum of the individual component's fuse rating. If there are no car circuits rated as high as the unit's fuse rating, connect the unit directly to the battery. If no car circuits are available for connecting this unit, connect the unit to a car circuit rated higher than the unit's fuse rating in such a way that if the unit blows its fuse, no other circuits will be cut off.

If your car has no accessory position on the ignition key switch — POWER SELECT switch

The illumination on the front panel is factory-set to be turned on even when the unit is not being played. However, this setting may cause some car battery wear **if your car has no accessory position on the ignition key switch**. To avoid this battery wear, **set the POWER SELECT switch located on the bottom of the unit to the ❶ position, then press the reset button**. The illumination is reset to stay off while the unit is not being played.

Notes
- *The caution alarm for the front panel is not activated when the POWER SELECT switch is set to the ❶ position.*
- *Do not use excessive force when changing the POWER SELECT switch.*



Reset button

When the installation and connections are complete, be sure to press the reset button with a ball-point pen etc.

Connection diagram

Equipment used in illustrations (not supplied)

Front speaker

Rear speaker

TV monitor

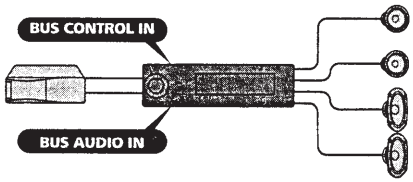
Active subwoofer

Power amplifier

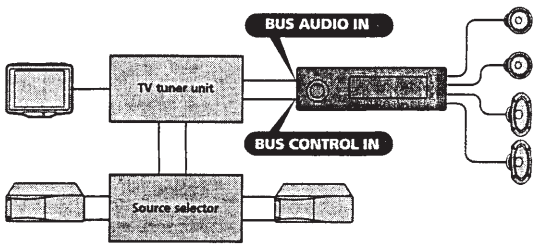
CD/MD changer

Note
For connecting two or more changers, the source selector XA-C30 (optional) is necessary.

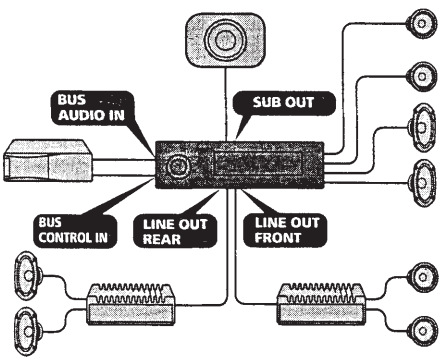
A



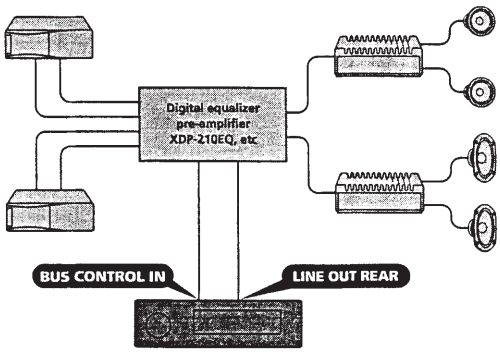
B



C

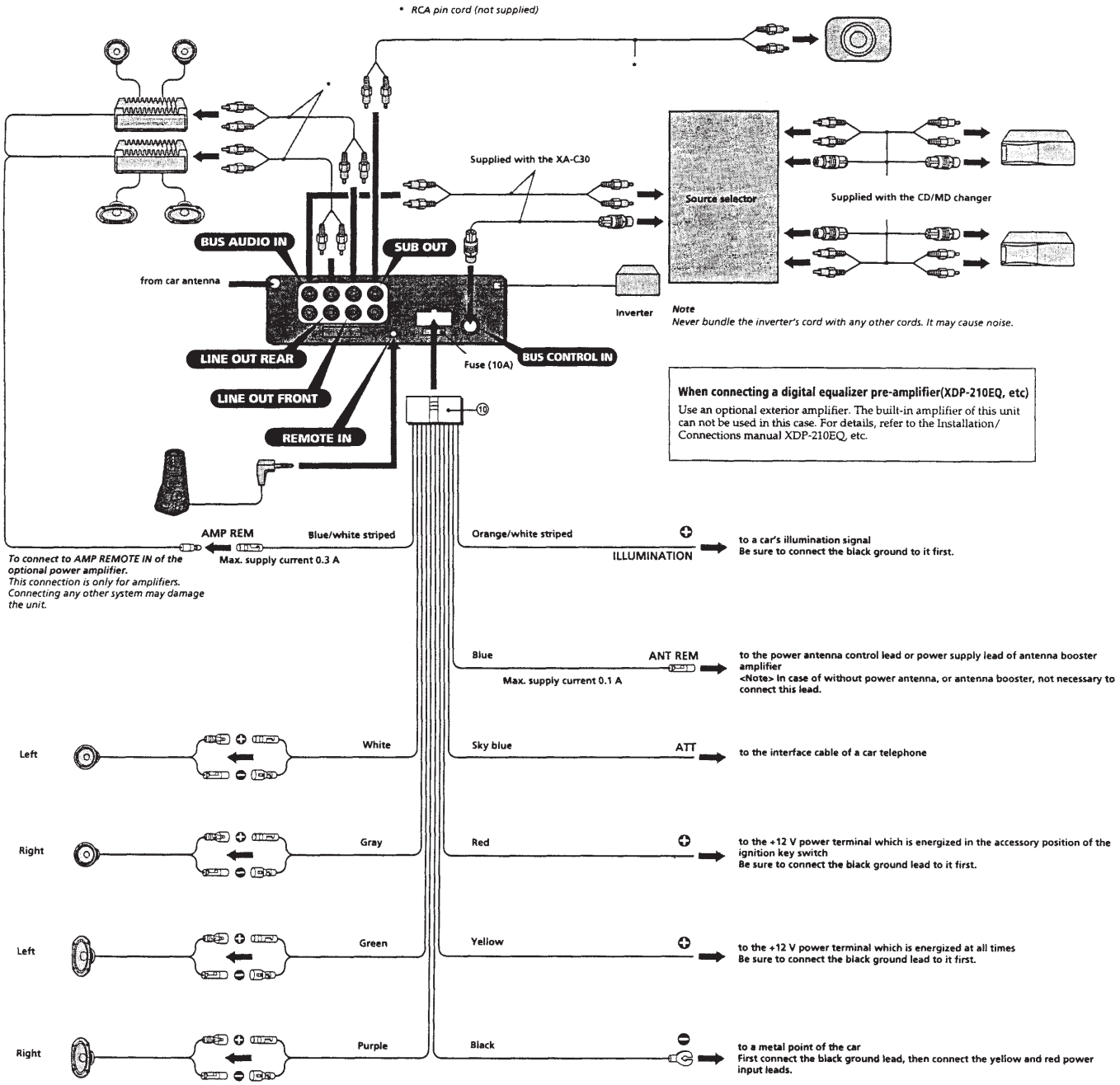


D



For details about the connection, refer to the Installation/ Connections manual XDP-210EQ,etc. (not supplied)

Connection example


* RCA pin cord (not supplied)
Supplied with the XA-C30
Source selector
Supplied with the CD/MD changer
BUS AUDIO IN
SUB OUT
from car antenna
Inverter
Note
Never bundle the inverter's cord with any other cords. It may cause noise.
LINE OUT REAR
BUS CONTROL IN
Fuse (10A)
LINE OUT FRONT
REMOTE IN
When connecting a digital equalizer pre-amplifier(XDP-210EQ, etc)
Use an optional exterior amplifier. The built-in amplifier of this unit can not be used in this case. For details, refer to the Installation/ Connections manual XDP-210EQ, etc.
AMP REM
Blue/white striped
Max. supply current 0.3 A
To connect to AMP REMOTE IN of the optional power amplifier.
This connection is only for amplifiers.
Connecting any other system may damage the unit.
Orange/white striped
ILLUMINATION
to a car's illumination signal
Be sure to connect the black ground to it first.
Blue
ANT REM
Max. supply current 0.1 A
to the power antenna control lead or power supply lead of antenna booster amplifier
<Note> In case of without power antenna, or antenna booster, not necessary to connect this lead.
Left
White
Sky blue
ATT
to the interface cable of a car telephone
Right
Gray
Red
to the +12 V power terminal which is energized in the accessory position of the ignition key switch
Be sure to connect the black ground lead to it first.
Left
Green
Yellow
to the +12 V power terminal which is energized at all times
Be sure to connect the black ground lead to it first.
Right
Purple
Black
to a metal point of the car
First connect the black ground lead, then connect the yellow and red power input leads.

Notes on the control leads

- *The power antenna control lead (blue) supplies +12 V DC when you turn on the unit.*
- *A power antenna without relay box cannot be used with this unit.*

Memory hold connection

When the yellow power input lead is connected, power will always be supplied to the memory circuit even when the ignition key is turned off.

Notes on speaker connection

- *Before connecting the speakers, turn the unit off.*
- *Use speakers with an impedance of 4 to 8 ohms, and with adequate power handling capacities. Otherwise, the speakers may be damaged.*
- *Do not connect the antennas of the speaker system to the car chassis, and do not connect the antennas of the right speaker with those of the left speaker.*
- *Do not attempt to connect the speakers in parallel.*
- *Do not connect any active speakers (with built-in amplifiers) to the speaker antennas of the unit. Doing so may damage the active speakers. Therefore, be sure to connect passive speakers to these antennas.*

Inverter

- Install the inverter far away from the unit using double-side adhesive tape or something similar.
- Be sure not to mount the inverter under a mat or in a place exposed to splashing water of air conditioner. It may cause electric shock or damage to the unit.

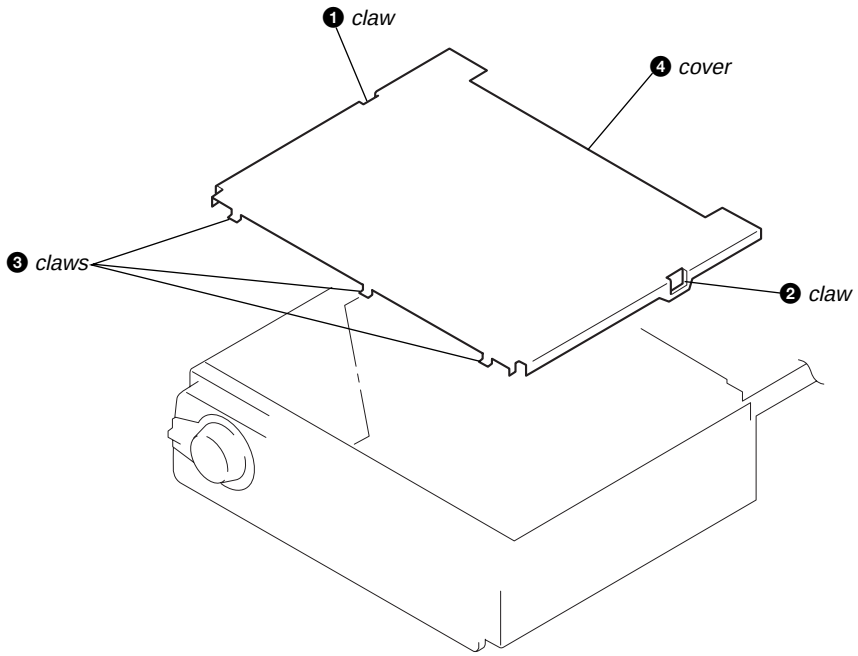
Note

If the inverter's cord is pinched, the display indications may not appear.

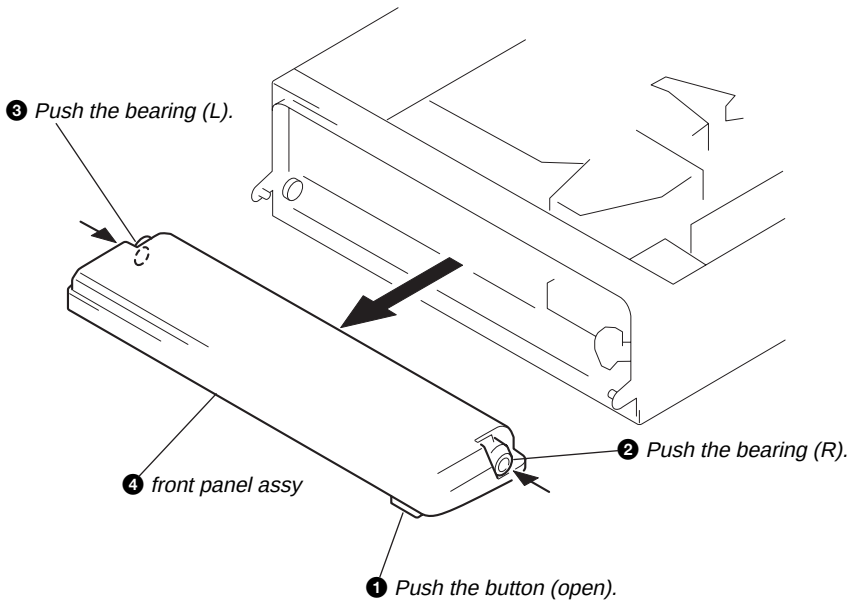
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

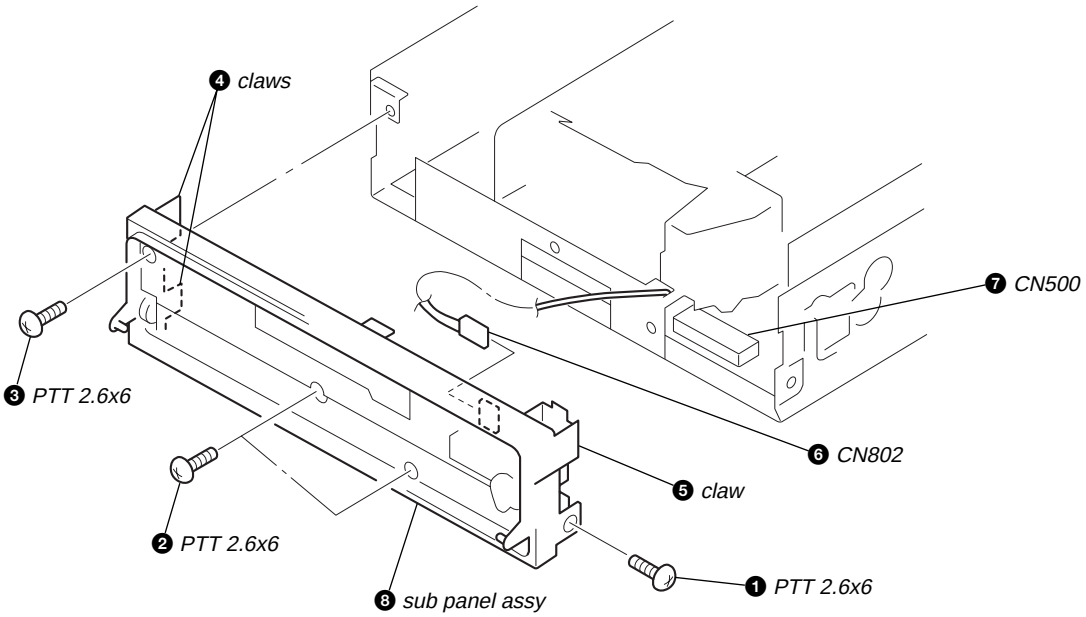
2-1. COVER



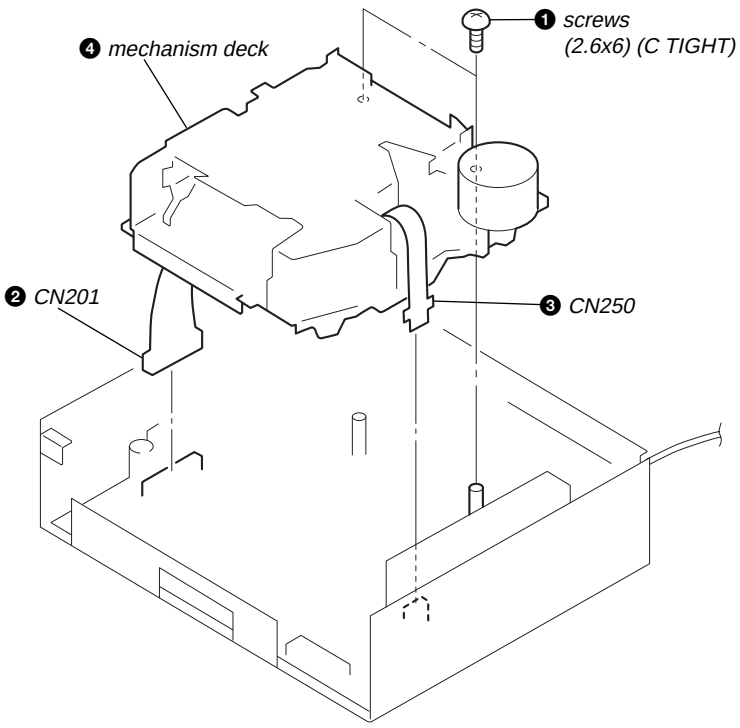
2-2. FRONT PANEL ASSY



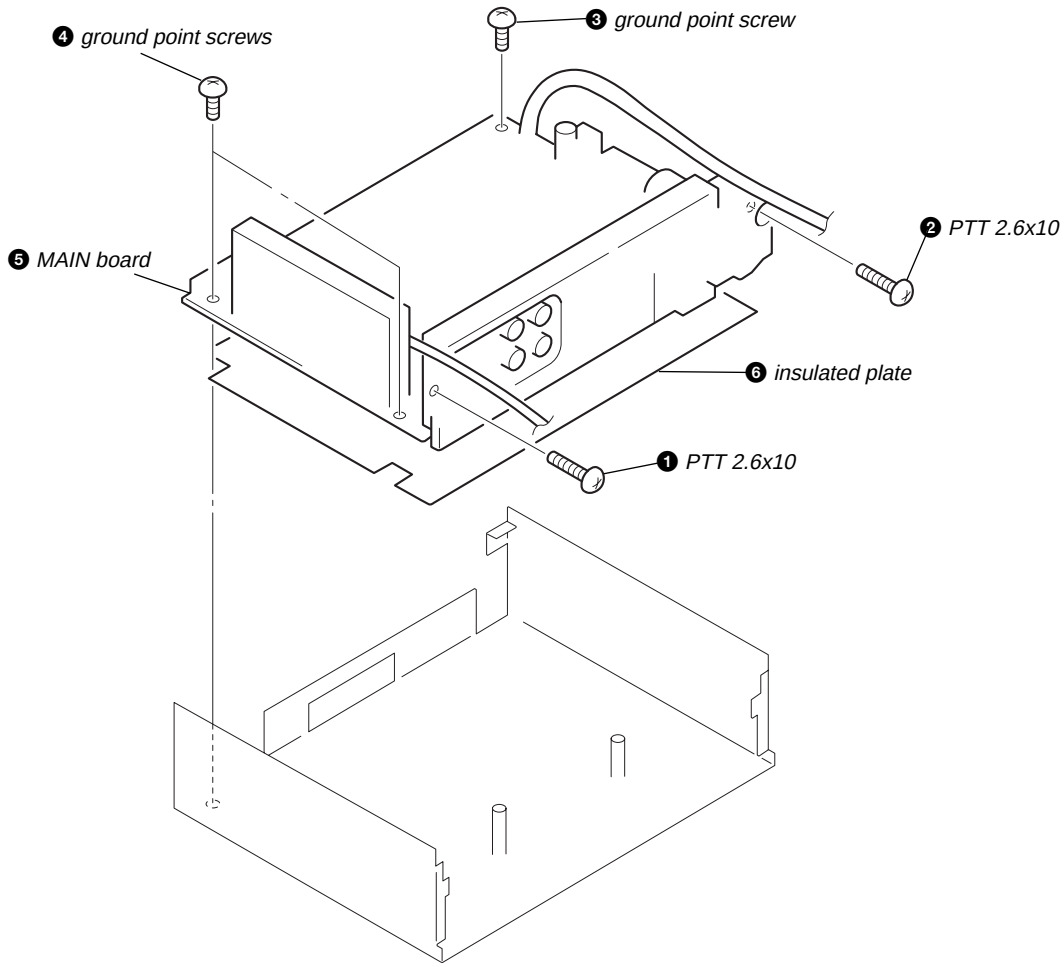
2-3. SUB PANEL ASSY



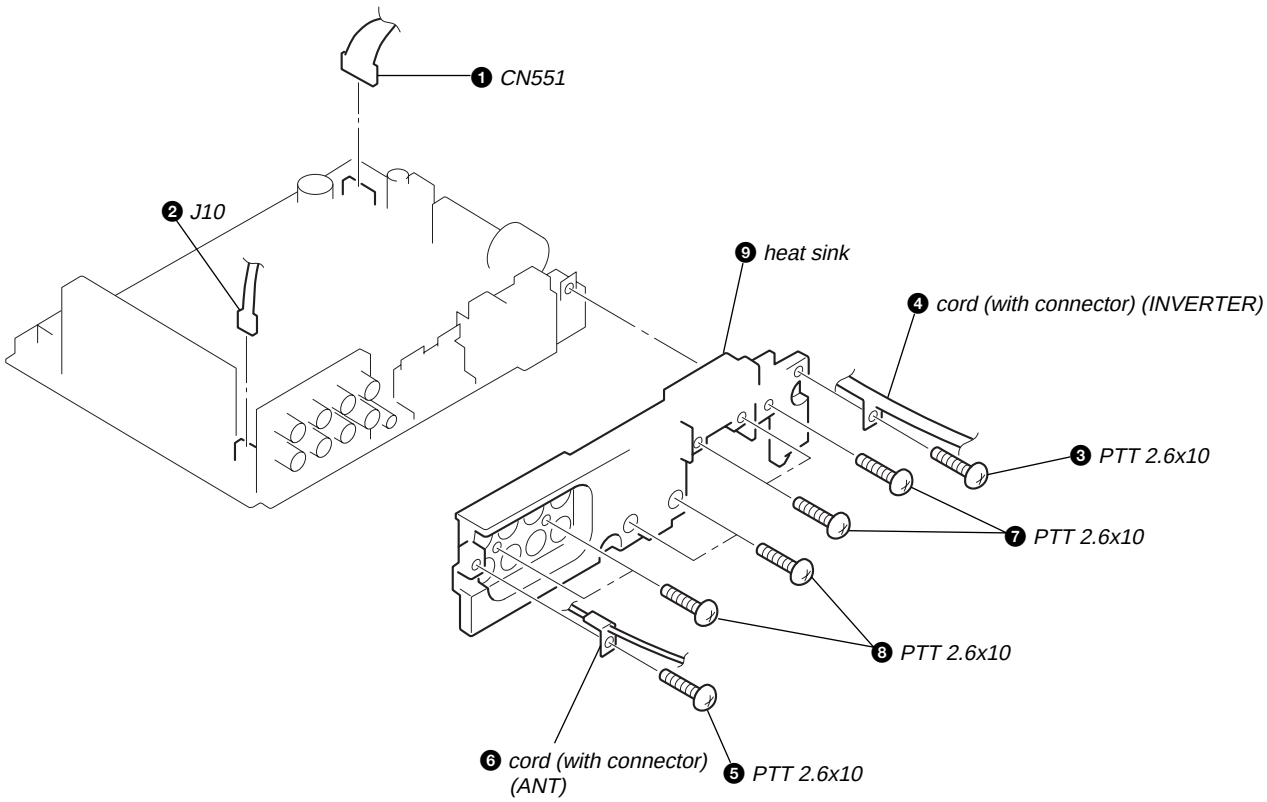
2-4. MECHANISM DECK



2-5. MAIN BOARD



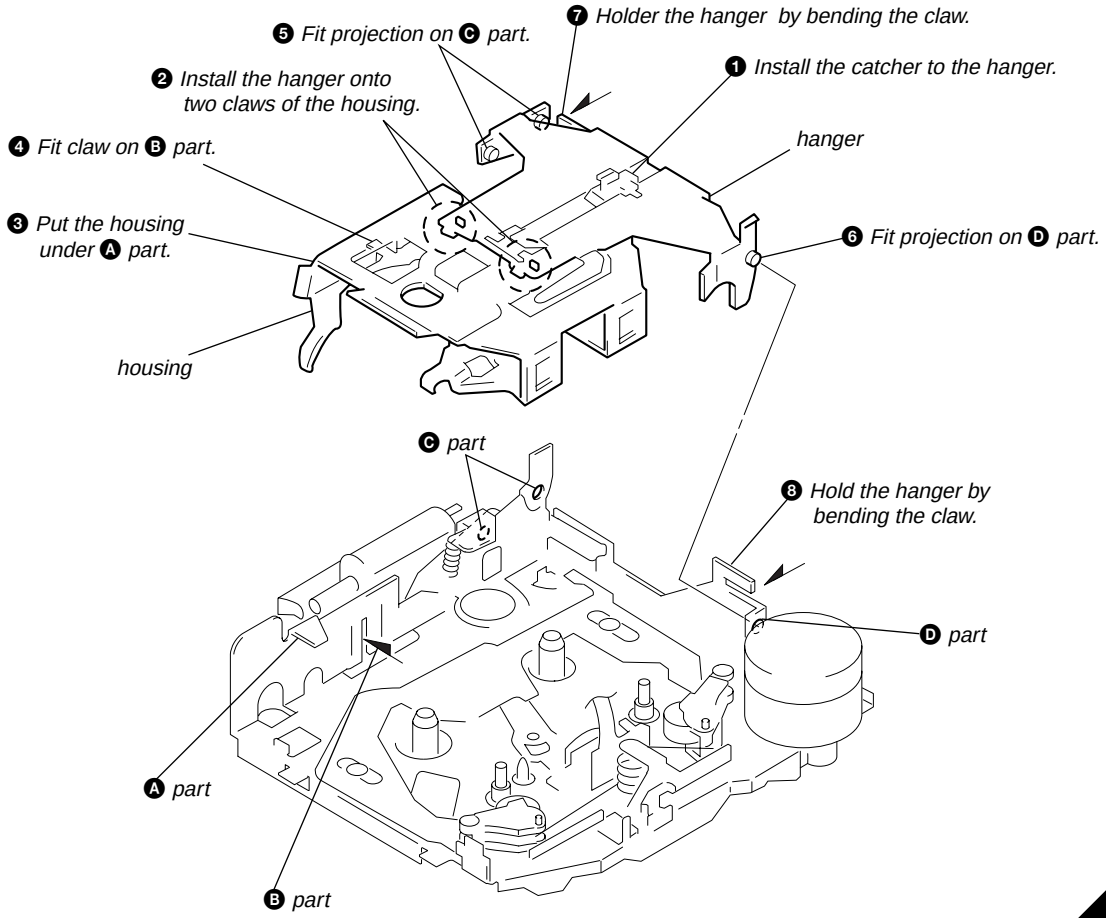
2-6. HEAT SINK



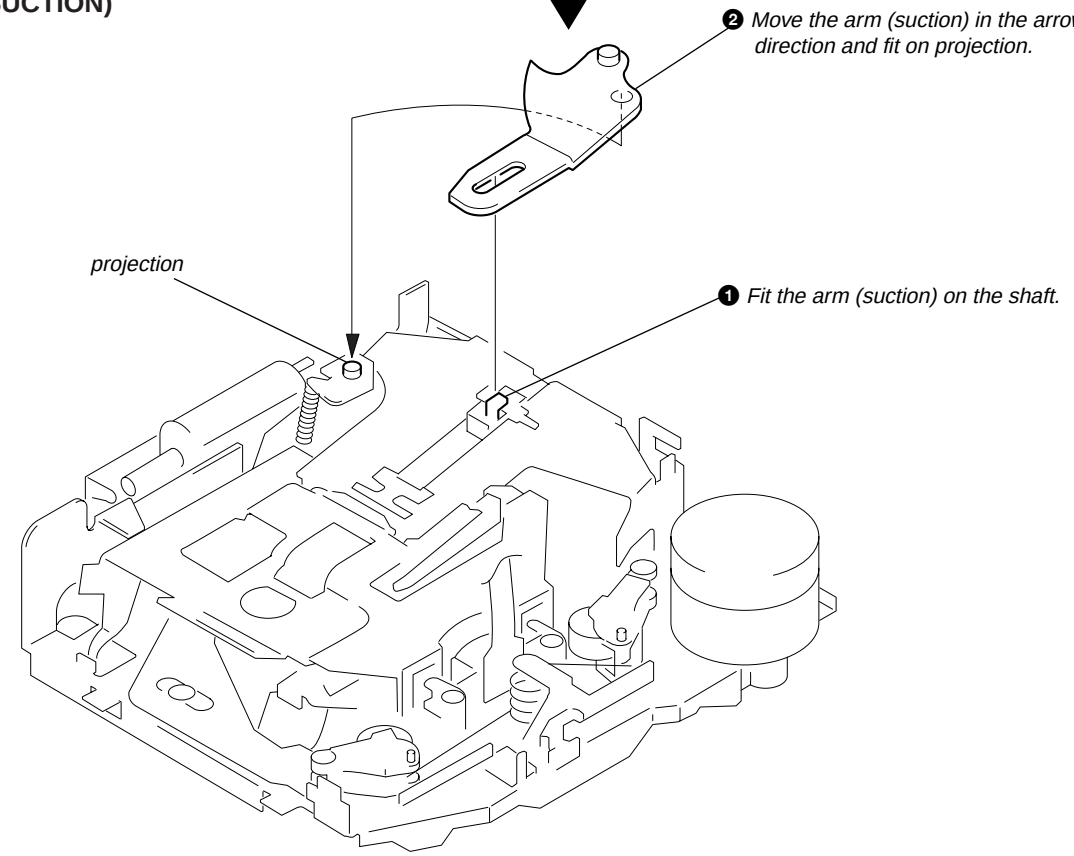
SECTION 3
ASSEMBLY OF MECHANISM DECK

Note : Follow the assembly procedure in the numerical order given.

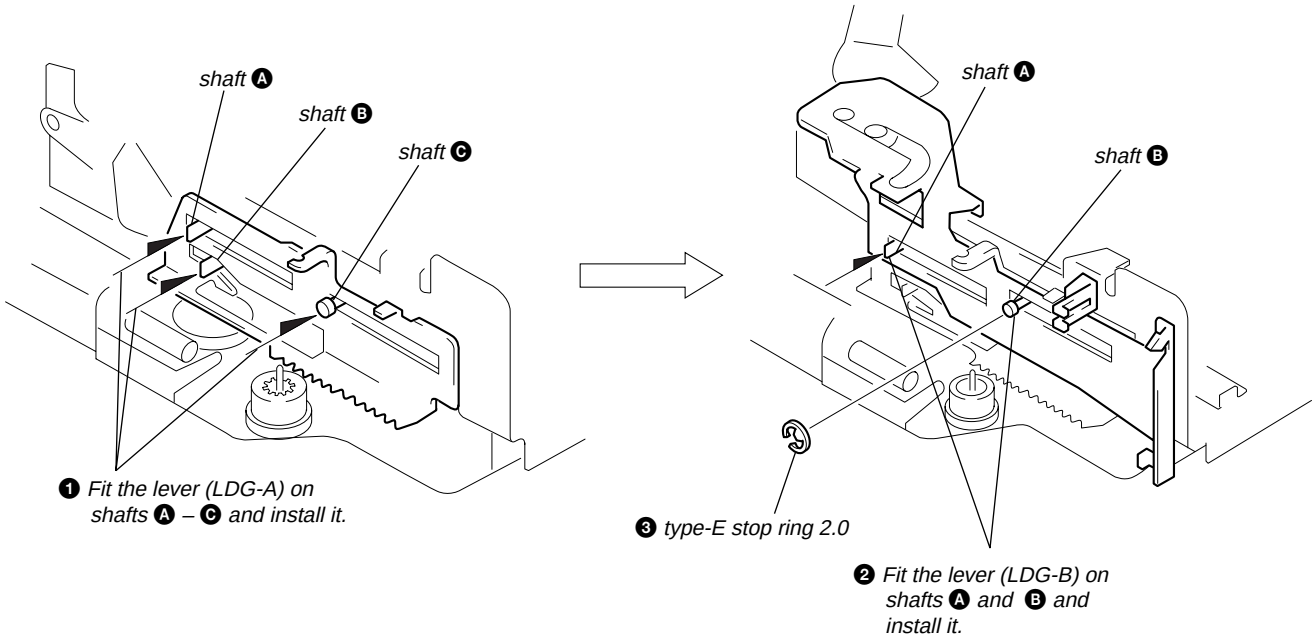
HOUSING


❼ Holder the hanger by bending the claw.
❺ Fit projection on Ⓒ part.
❶ Install the catcher to the hanger.
❷ Install the hanger onto two claws of the housing.
hanger
❹ Fit claw on Ⓑ part.
❸ Put the housing under Ⓐ part.
❻ Fit projection on Ⓓ part.
housing
Ⓒ part
❽ Hold the hanger by bending the claw.
Ⓓ part
Ⓐ part
Ⓑ part

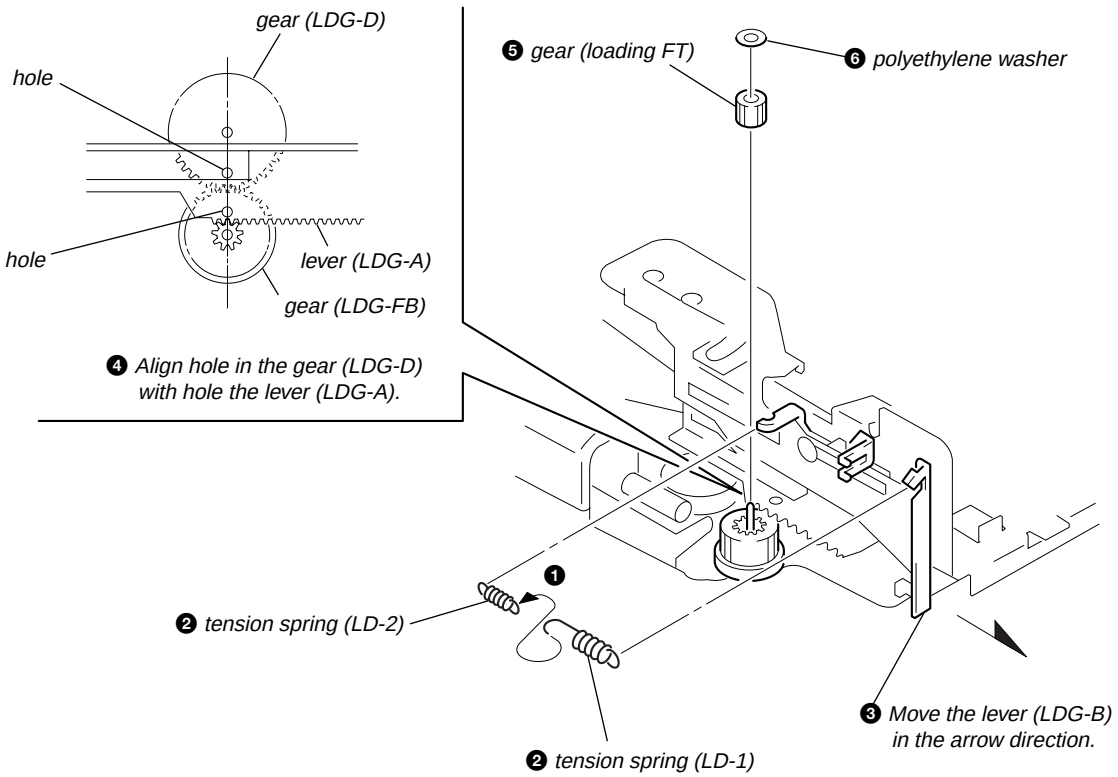
ARM (SUCTION)



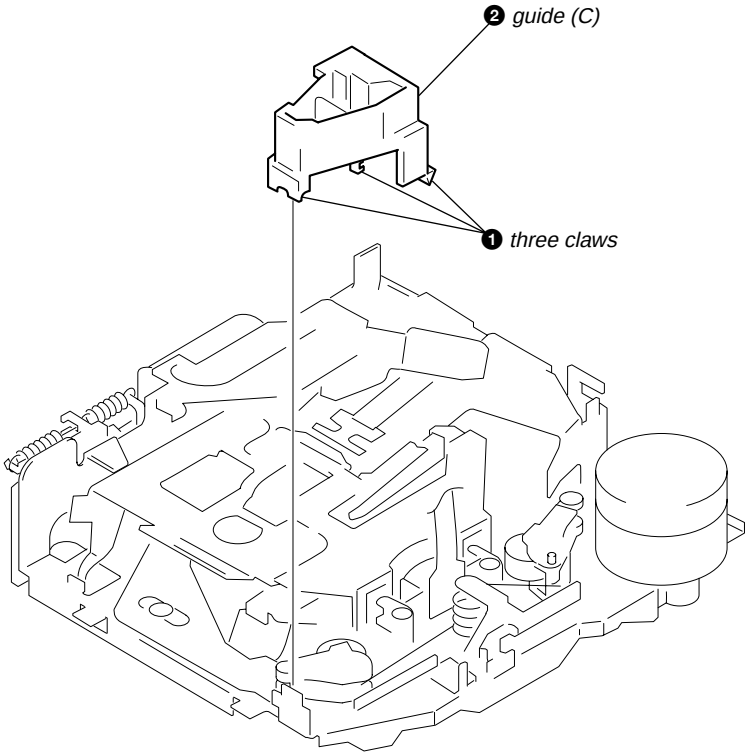
LEVER (LDG-A) / (LDG-B)


shaft Ⓐ
shaft Ⓑ
shaft Ⓒ
❶ Fit the lever (LDG-A) on shafts Ⓐ – Ⓒ and install it.
shaft Ⓐ
shaft Ⓑ
❸ type-E stop ring 2.0
❷ Fit the lever (LDG-B) on shafts Ⓐ and Ⓑ and install it.

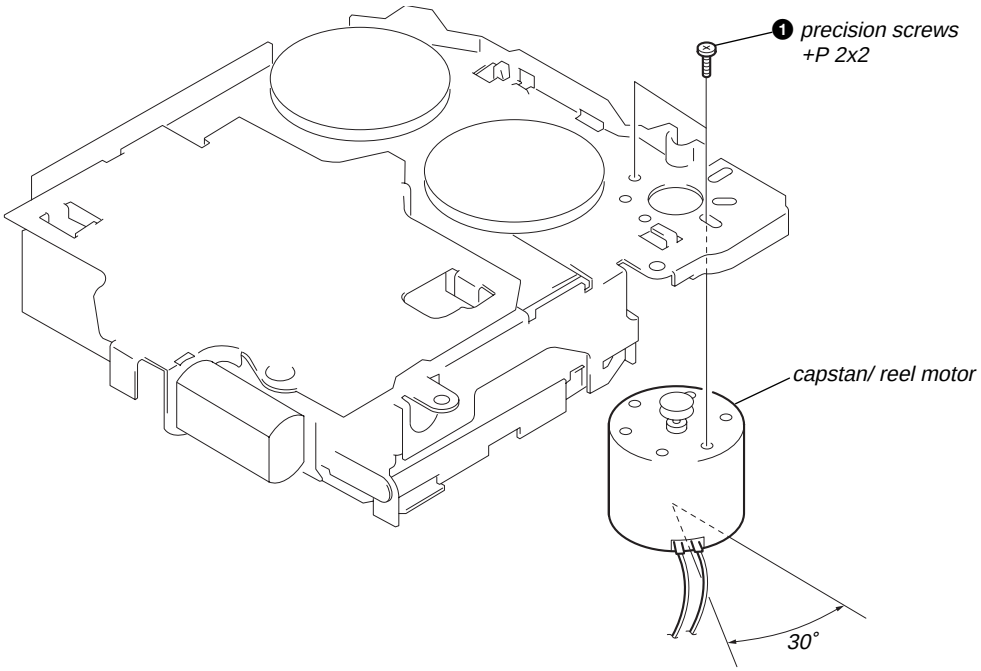
GEAR (LOADING FT)



GUIDE (C)



MOUNTING POSITION OF CAPSTAN/REEL MOTOR (M901)



SECTION 4
MECHANICAL ADJUSTMENTS

PRECAUTION

1. Wipe the following components with an absorbent cotton cloth moistened with alcohol before adjustment :
   PB head Pinch roller
   Idler Rubber belt
   Capstan
2. Demagnetize the PB head using a head demagnetizer.
3. Be careful not to use a magnetized screwdriver.
4. After the adjustment is completed, lock the adjustment parts using screws.
5. Unless otherwise specified, make adjustments at the specified voltage (14.4V).

Torque Measurement

Mode	Torque Meter	Meter Reading
FWD	CQ-102C	35 – 65 g • cm (0.49 – 0.90 oz • inch)
FWD Back Tension		0.5 – 5.0 g • cm (0.01 – 0.07 oz • inch)
REV	CQ-102RC	35 – 65 g • cm (0.49 – 0.90 oz • inch)
REV Back Tension		0.5 – 5.0 g • cm (0.01 – 0.07 oz • inch)
FF, REW	CQ-201B	60 – 200 g • cm (0.83 – 2.78 oz • inch)

Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 60 g (more than 2.12 oz)
REV	CQ-403R	

SECTION 5
ELECTRICAL ADJUSTMENTS

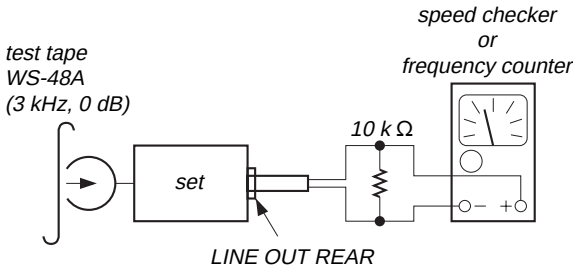
See the adjustment location from on page 29 for the adjustment.

TAPE SECTION **0 dB = 0.775 V**

Tape Speed Adjustment

Procedure :

1. Put the set into the FWD PB mode.



Specification : Constant speed

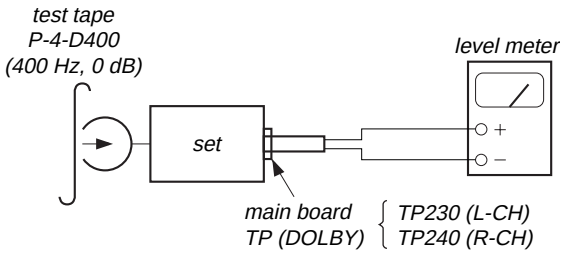
Speed checker	Frequency counter
– 1 to + 2 %	2,970 to 3,060 Hz

Adjustment Location : See page 29.

DOLBY Level Adjustment

Setting :

SHIFT → 3 (PLAY MODE) button (twice) : NR off



Procedure :

1. Put the set into the FWD PB mode.
2. Adjust RV230 (L-CH) and RV240 (R-CH) so that level meter reading is – 6 ± 1 dB (0.35 to 0.44 V).

Adjustment Location : See page 29.

TUNER SECTION **0 dB = 1 μV**

Cautions during repair
When the tuner unit is defective, replace it by a new one because its internal block is difficult to repair.

TEST MODE

This set have the test mode function. In the test mode, FM Auto Scan/Stop Level and AM Auto Scan/Stop Level adjustments can be performed easier than it in ordinary procedure.

<Set the Test Mode>
1. Set the "OFF" mode.
2. Push the preset [4] button.
3. Push the preset [5] button.
4. Press the preset [1] button for more than two seconds.
5. Then the display indicates all lights, the test mode is set.

<Release the Test Mode>
1. Push the [OFF] button.

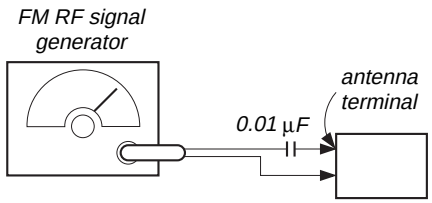
Note on Adjustment

The adjustments of tuner section, should be performed according to the following sequence.
1. FM Auto Scan/Stop Level Adjustment
2. FM Stereo Separation Adjustment (WIDE)
3. FM Stereo Separation Adjustment (NARROW)
4. AM Auto Scan/Stop Level Adjustment

FM Auto Scan/Stop Level Adjustment

Setting :

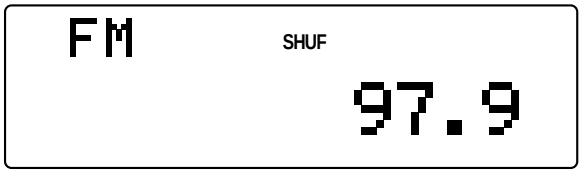
SOURCE button : FM
FREQUENCY SELECT switch (E model) : FM 200K



Carrier frequency : 97.9 MHz
Output level : 22 dB (12.6 μV)
Mode : mono
Modulation : 1 kHz, 22.5 kHz deviation (30%)

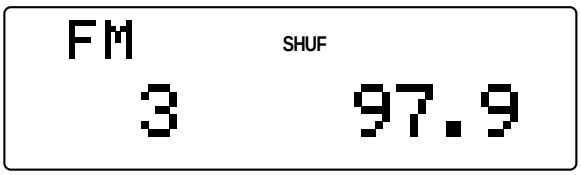
Procedure :
1. Set to the test mode.
2. Push the [SOURCE] button and set to FM.

Display



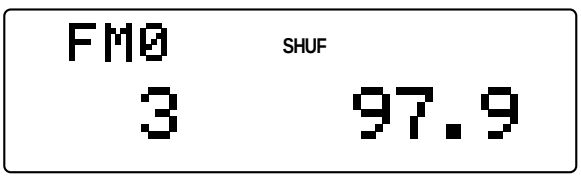
3. Push the preset [3] button.

Display



4. Adjust with the volume RV2 on TUX10 so that the "FM" indication turns to "FM0" indication on the display window. But, in case of already indicated "FM0", turn the RV2 so that put out light "0" indication and adjustment.

Display

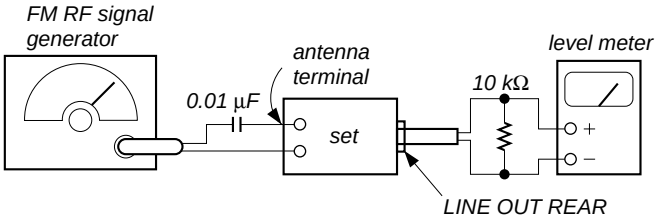


Adjustment Location : See page 29.

FM Stereo Separation Adjustment (WIDE)

Setting :

SOURCE button : FM
FREQUENCY SELECT switch (E model) : FM 200K



Carrier frequency : 97.9 MHz
Output level : 70 dB (3.2 mV)
Mode : stereo
Modulation : main : 1 kHz, 33.75 kHz deviation (45%)
sub : 1 kHz, 33.75 kHz deviation (45%)
19 kHz pilot : 7.5 kHz deviation (10%)

Procedure :

1. Set to the test mode.
2. Push the [SHIFT] button.
3. Push the [4] button three times.
4. Push the [5] button once and set to WIDE mode.

FM stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV3 on TUX10 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV3 on TUX10 for minimum reading.

L-CH stereo separation : Ⓐ – Ⓑ
R-CH stereo separation : Ⓒ – Ⓓ
The separations of both channels should be equal.

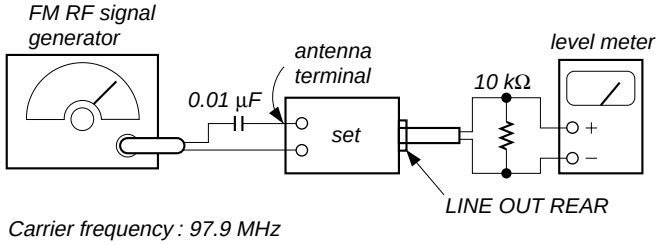
Specification : Separation more than 24 dB

Adjustment Location : See page 29.

FM Stereo Separation Adjustment (NARROW)

Setting :

SOURCE button : FM
FREQUENCY SELECT switch (E model) : FM 200K



Carrier frequency : 97.9 MHz
Output level : 70 dB (3.2 mV)
Mode : stereo
Modulation : main : 1 kHz, 33.75 kHz deviation (45%)
sub : 1 kHz, 33.75 kHz deviation (45%)
19 kHz pilot : 7.5 kHz deviation (10%)

Procedure :

1. Set to the test mode.
2. Push the [SHIFT] button.
3. Push the [4] button three times.
4. Push the [5] button twice and set to NARROW mode.

FM stereo signal generator output channel	Level meter connection	Level meter reading (dB)
L-CH	L-CH	Ⓐ
R-CH	L-CH	Ⓑ Adjust RV4 on TUX10 for minimum reading.
R-CH	R-CH	Ⓒ
L-CH	R-CH	Ⓓ Adjust RV4 on TUX10 for minimum reading.

L-CH stereo separation : Ⓐ – Ⓑ
R-CH stereo separation : Ⓒ – Ⓓ
The separations of both channels should be equal.

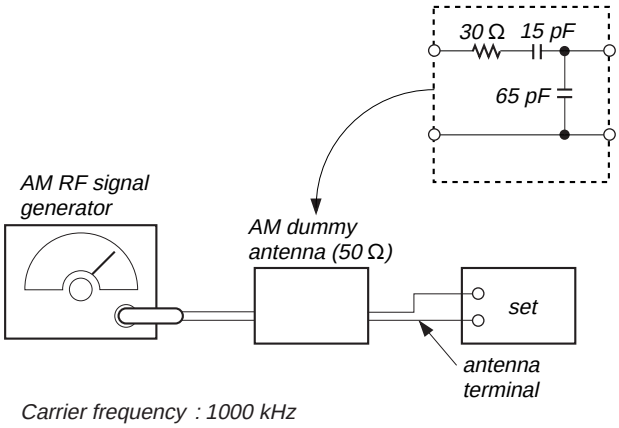
Specification : Separation more than 18 dB

Adjustment Location : See page 29.

AM Auto Scan/Stop Level Adjustment

Setting :

SOURCE ⟶ MODE button : AM
FREQUENCY SELECT switch (E model) : AM 10K

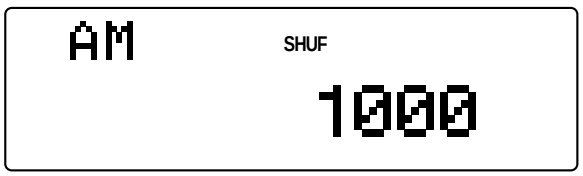


Carrier frequency : 1000 kHz
30% amplitude modulation by 1 kHz signal
output level : 33 dB (44.7 μV)

Procedure :

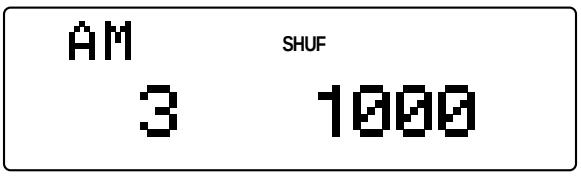
1. Set to the test mode. (See page 26.)
2. Push the [SOURCE] button.
3. Push the [MODE] button and set to AM.

Display



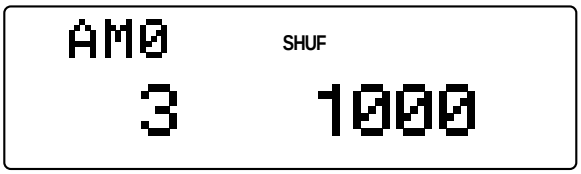
4. Push the preset [3] button.

Display



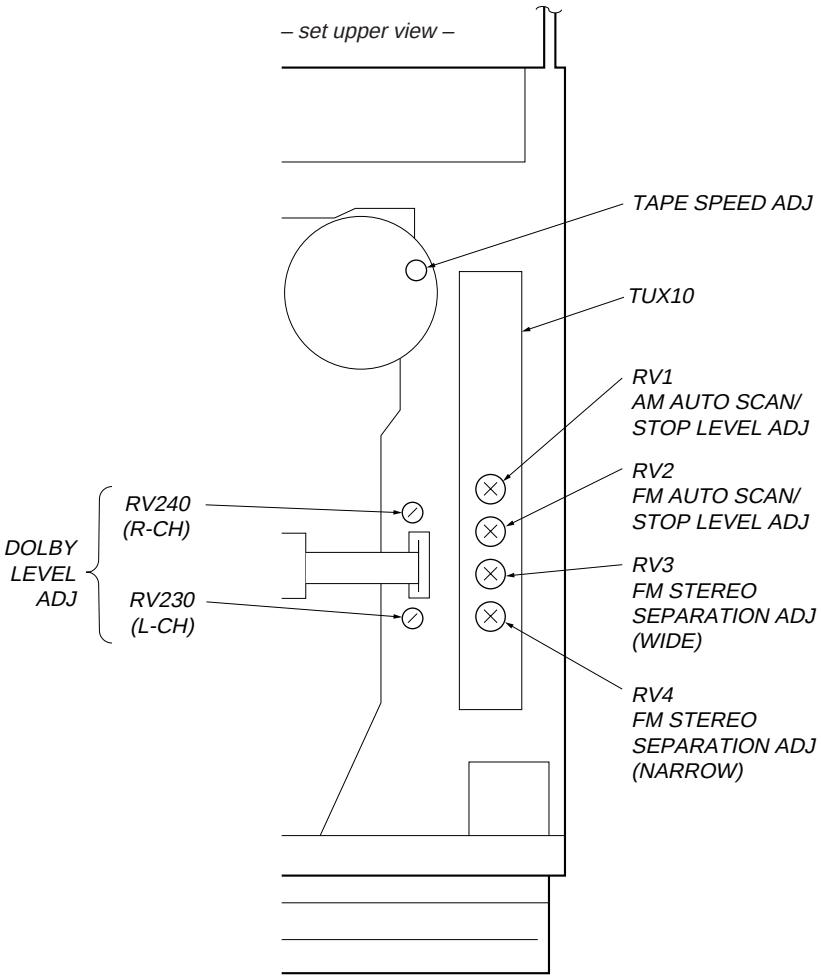
5. Adjust with the volume RV1 on TUX10 so that the “AM” indication turns to “AM0” indication on the display window. But, in case of already indicated “AM0”, turn the RV1 so that put out light “0” indication and adjustment.

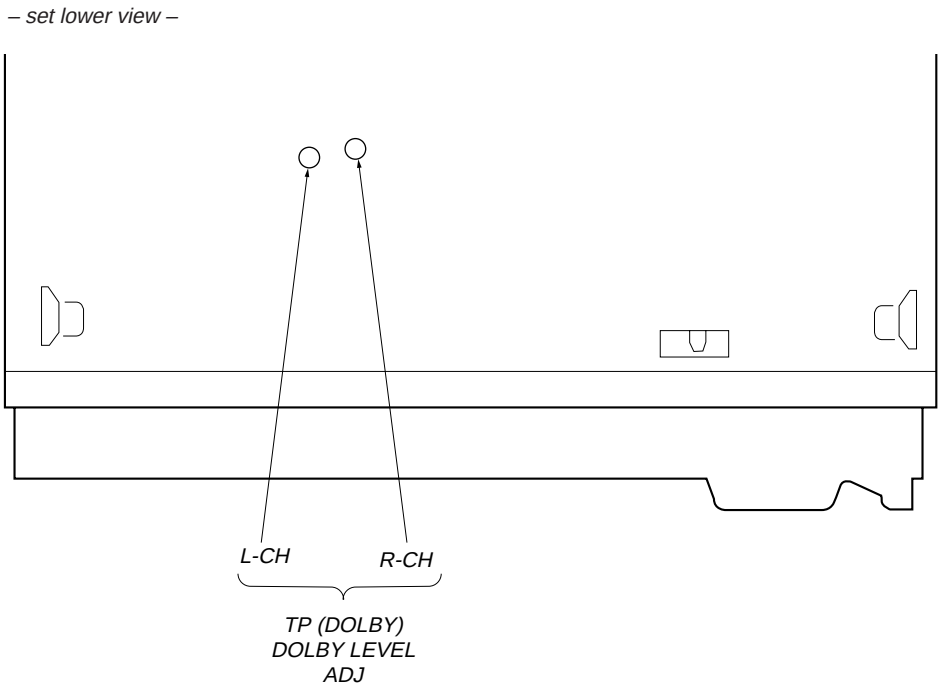
Display



Adjustment Location : See page 29.

Adjustment Location : tuner unit (TUX10)





SECTION 6
DIAGRAMS

6-1. IC PIN DESCRIPTION

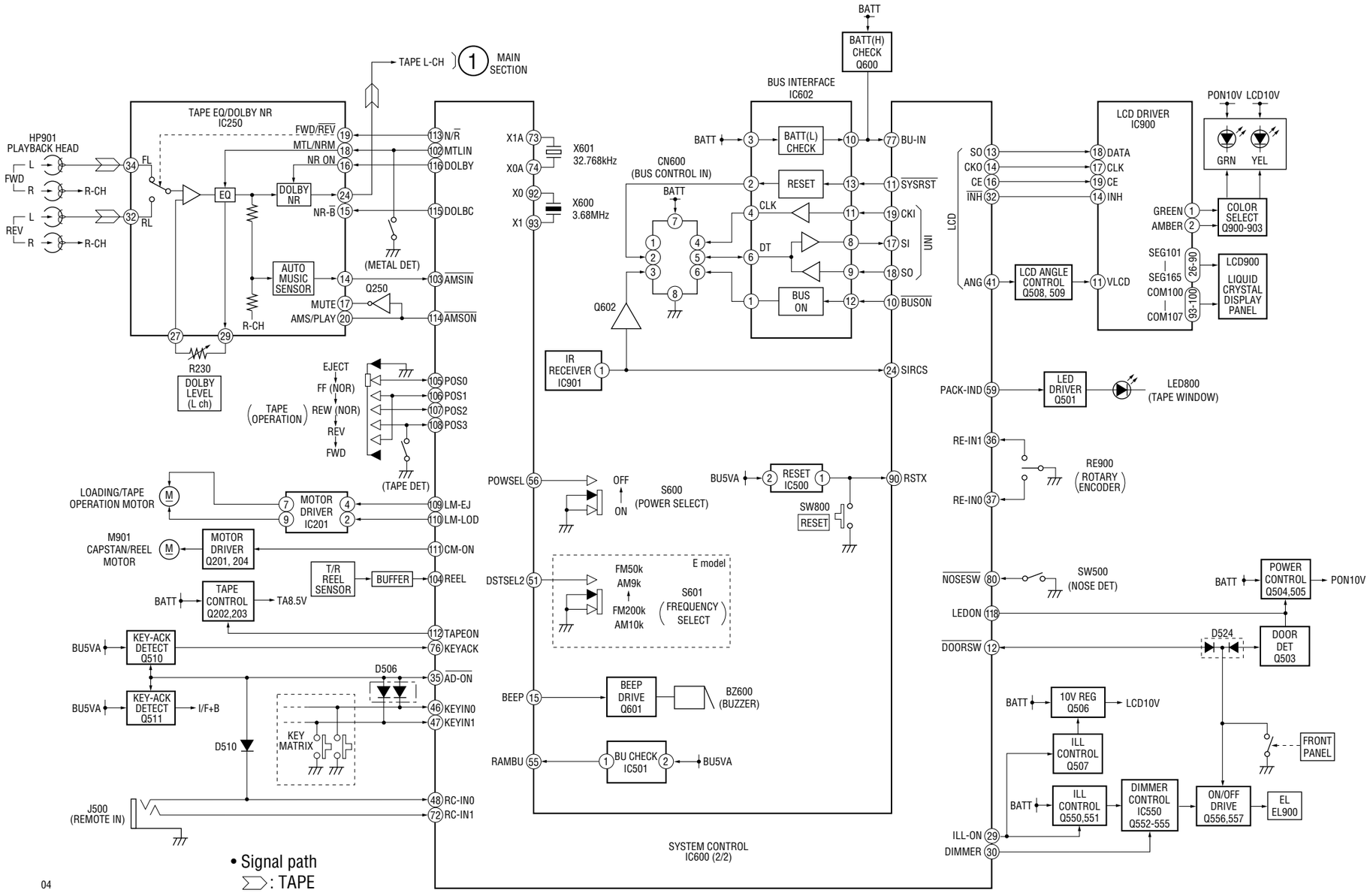
• IC600 MB90574PFV-G-134-BND (SYSTEM CONTROL)

Pin No.	Pin Name	I/O	Pin Description
1	$\overline{\text{SEKOUT}}$	O	SEEK OUT output
2	AF-SEEK	O	AF SEEK output (Not used in this set.)
3	WIDE	O	WIDE/NARROW select output
4	$\overline{\text{ST}}$-MONO	I/O	Use a thing both as ST-IND display input and force MONO output.
5	TUNMUTE	O	Tuner mute output
6	FM-ON	O	FM ON output
7	TU-ON	O	Tuner ON output
8	VCC	—	Power supply pin (+5 V)
9	$\overline{\text{CSV-RST}}$	O	Audio composition IC reset output
10	$\overline{\text{BUSON}}$	O	Bus ON control output
11	$\overline{\text{SYSRST}}$	O	System reset output
12	$\overline{\text{DOORSW}}$	I	Door OPEN/CLOSE detection input
13	LCDSO	O	LCD serial data output
14	LCDCKO	O	LCD serial clock output
15	BEEP	O	BEEP output
16	LCDCE	O	LCD chip enable output
17	UNISI	O	Serial data input
18	UNISO	O	Serial data output
19	UNICKI	I	Serial clock input
20	SD-IN	I	Signal detector input
21	CSV-SO	O	Audio composition serial data output
22	CSV-CKO	O	Audio composition serial clock output
23	CSV-CE	O	Audio composition chip enable output
24	SIRCS	I	Remote commander input
25	PLLSI	I	PLL data input
26	PLLSO	O	PLL data output
27	PLLCKO	O	PLL clock output
28	PLLCE	O	PLL chip enable output
29	ILL-ON	O	Illumination power control output
30	DIMMER	I/O	Dimmer control input/output
31	—	—	Not used in this set.
32	$\overline{\text{LCDINH}}$	O	LCD blank display control output
33	VSS	—	GND
34	C	—	Power stabilization capacitor pin
35	$\overline{\text{AD-ON}}$	O	Power control output of A/D conversion.
36, 37	RE-IN0, 1	I	Rotary encoder input 0, 1
38	DVCC	—	D/A converter VREF input
39	DVSS	—	GND of D/A converter.
40	—	—	Not used in this set.
41	LCDANG	O	LCD view angle alignment output
42	AVCC	—	Analog power supply pin (+5 V)
43	AVRH	—	A/D converter VREF+ input
44	AVRL	—	A/D converter VREF– input
45	AVSS	—	Analog GND
46, 47	KEYIN0, 1	I	Key input 0, 1
48	RC-IN0	I	Rotary commander input 0
49	DSTSEL0	I	Destination select input 0 (Fixed at “L” in this set.)
50	DSTSEL1	I	Destination select input 1 (Fixed at “H” in this set.)
51	DSTSEL2	I	Destination select input 2 (Fixed at “L” in this set.) (US model) Frequency select input (E model)
52	MTP	I	Tuner multi-pass input (Not used in this set.)

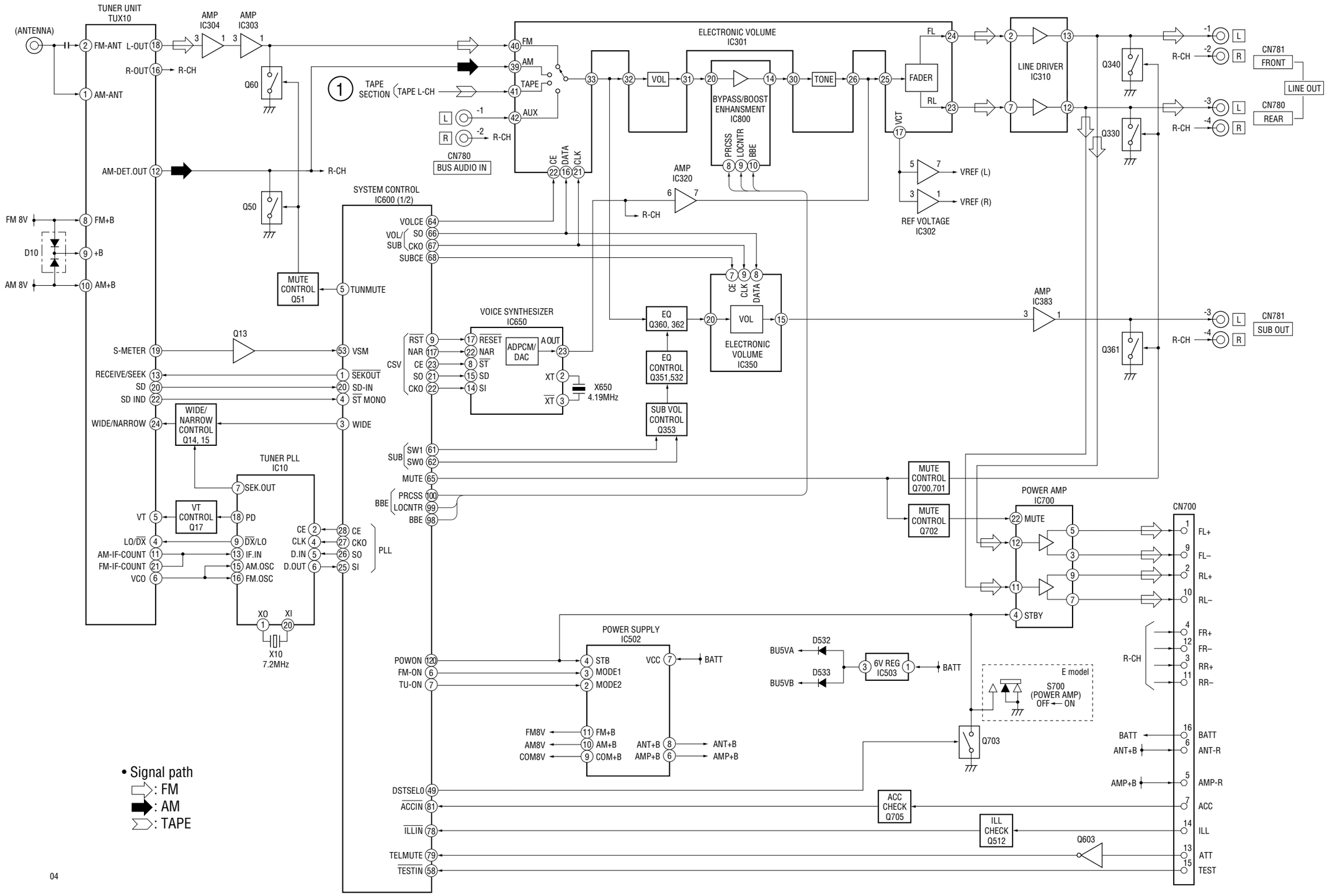
Pin No.	Pin Name	I/O	Pin Description
53	VSM	I	S-Meter voltage detection input
54	VCC	—	Power supply pin (+5 V)
55	RAMBU	I	RAM reset detection input
56	POWSEL	I	Power select initial setting input
57	$\overline{\text{EQ-SEL}}$	I	Equalizer connection with/without detection initial input
58	$\overline{\text{TESTIN}}$	I	Test mode setting detection input
59	PACK-IND	O	Door indicator output
60	—	—	Not used in this set.
61, 62	SUB-SW1, 0	O	Simple SUB WOOFER control output 1, 0
63	VSS	—	GND
64	VOLCE	O	Electric volume serial chip enable output
65	MUTE	O	System mute control output
66	VOLSO/SUBSO	O	Main/Sub volume serial data output
67	VOLCKO/SUBCKO	O	Main/Sub volume serial clock output
68	SUBCE	O	Sub volume serial chip enable output
69	$\overline{\text{FLASH-W}}$	I	Flash write in mode detection input
70	RDSSI	I/O	RDS serial data input/output (Not used in this set.)
71	RDSCKI	O	RDS serial clock output (Not used in this set.)
72	RC-IN1	I	Rotary commander input
73	X1A	—	Low speed oscillation input (32.768 kHz)
74	X0A	—	Low speed oscillation input (32.768 kHz)
75	DAVN	I	RDS IC data taking in detection input (Not used in this set.)
76	KEYACK	I	Key input acknowledge
77	BU-IN	I	Back-up power detection input
78	$\overline{\text{ILLIN}}$	I	Illumination line detection input
79	TELMUTE	I	Telephone mute detection input
80	$\overline{\text{NOSESW}}$	I	Front panel detachable detection input
81	$\overline{\text{ACCIN}}$	I	Accessory power detection input
82 – 85	—	—	Not used in this set.
86	HSTX	I	Connect to power supply pin.
87	MD2	I	Connect to GND.
88, 89	MD0, 1	I	Connect to power supply pin.
90	RSTX	I	Microcomputer reset input
91	VSS	—	GND
92	X0	—	High speed oscillation input (3.68 MHz)
93	X1	—	High speed oscillation input (3.68 MHz)
94	VCC	—	Power supply pin (+5 V)
95	—	—	Not used in this set.
96	—	—	Not used in this set.
97	—	—	Not used in this set.
98	BBE	O	BBE ON/OFF control output
99	LOCNTR-BBE	O	BBE HIGH/LOW boost control output
100	PRCSS-BBE	O	BBE processor signal output
101	—	—	Not used in this set.
102	MTLIN	I	Auto METAL detection input
103	$\overline{\text{AMSTIN}}$	I	Tape AMS music detection input
104	REEL	I	Tape reel table rotation detection input
105	POS0	I	Tape position detection input 0
106	POS1	I	Tape position detection input 1
107	POS2	I	Tape position detection input 2
108	POS3	I	Tape position detection input 3
109	LM-EJ	O	Tape loading motor control output (Eject direction)
110	LM-LOD	O	Tape loading motor control output (Loading direction)

Pin No.	Pin Name	I/O	Pin Description
111	CM-ON	O	Tape capstan motor control output
112	TAPEON	O	Tape power control output
113	N/$\overline{R}$	O	Tape forward/reverse detection output
114	$\overline{AMSON}$	O	Tape AMS control output
115	DOLBC	O	Tape DOLBY B/C select control output
116	DOLBY	O	Tape DOLBY control output
117	CSV-NAR	I	Space condition indicate signal input for voice synthesizer IC.
118	LEDON	O	Front panel LED control output
119	VSS	—	GND
120	POWON	O	System power control output

6-2. BLOCK DIAGRAM — TAPE SECTION —



6-3. BLOCK DIAGRAM — MAIN SECTION —



SEE ADDITIONAL INFORMATION

6-4. PRINTED WIRING BOARDS — MAIN SECTION —

• Semiconductor Location

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D10	E-10	D704	C-5	Q51	I-7
D11	E-14	D705	C-6	Q60	H-7
D12	E-15	D706	C-18	Q80	I-7
D200	G-3	D707	D-18	Q201	F-3
D201	F-20	D708	D-18	Q202	F-2
D202	F-2	D709	D-21	Q203	G-20
D250	F-8	D710	C-20	Q204	F-20
D501	J-17	D711	C-15	Q250	G-8
D502	J-18	D712	D-20	Q330	C-10
D503	I-15	D713	E-20	Q340	C-9
D504	I-8	D714	E-20	Q351	E-5
D505	I-8	D715	C-4	Q352	D-5
D506	I-10	D716	C-7	Q353	E-5
D507	E-19	D717	C-6	Q360	E-18
D508	C-7	D718	D-2	Q361	C-8
D509	C-8	D719	D-3	Q362	E-17
D510	C-7			Q430	C-8
D512	I-13	IC10	E-8	Q440	C-9
D513	I-10	IC201	F-2	Q460	E-18
D514	I-10	IC250	G-8	Q461	C-8
D515	I-13	IC301	G-7	Q462	E-17
D516	I-13	IC302	F-7	Q501	I-17
D517	I-8	IC303	H-9	Q503	H-19
D518	I-13	IC304	H-9	Q504	I-18
D519	I-8	IC310	D-9	Q505	I-17
D520	I-13	IC320	F-6	Q506	I-18
D521	I-15	IC350	E-6	Q507	I-5
D522	I-13	IC383	D-7	Q508	I-8
D523	H-5	IC410	D-8	Q509	I-7
D524	H-3	IC500	D-4	Q510	I-9
D525	I-9	IC501	D-18	Q511	I-9
D530	F-2	IC502	D-21	Q512	E-18
D532	E-21	IC503	F-21	Q550	G-20
D533	E-20	IC550	F-26	Q551	H-20
D534	E-21	IC600	G-4	Q552	E-26
D550	F-26	IC602	D-2	Q553	E-25
D551	E-25	IC650	E-4	Q554	E-26
D552	E-27	IC700	B-17	Q555	E-26
D553	E-26	IC800	I-7	Q556	E-27
D554	E-27			Q557	E-27
D601	E-2	LED800	G-24	Q600	E-2
D602	C-21	LED802	G-24	Q601	H-20
D603	C-21			Q602	D-3
D604	D-2	Q10	E-15	Q603	E-4
D605	D-2	Q11	E-8	Q700	C-7
D606	D-2	Q13	H-12	Q701	C-15
D608	C-21	Q14	F-10	Q702	D-6
D701	C-5	Q15	F-9	Q703	D-4
D702	C-5	Q17	E-9	Q705	E-19
D703	C-5	Q50	H-7		

Note:

- ○——: parts extracted from the component side.
- ●: Through hole.
- △: internal component.
- : Pattern from the side which enables seeing.

Caution:
Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

[MAIN BOARD] (SIDE A)

[MAIN BOARD] (SIDE B)

[INVERTER BOARD]

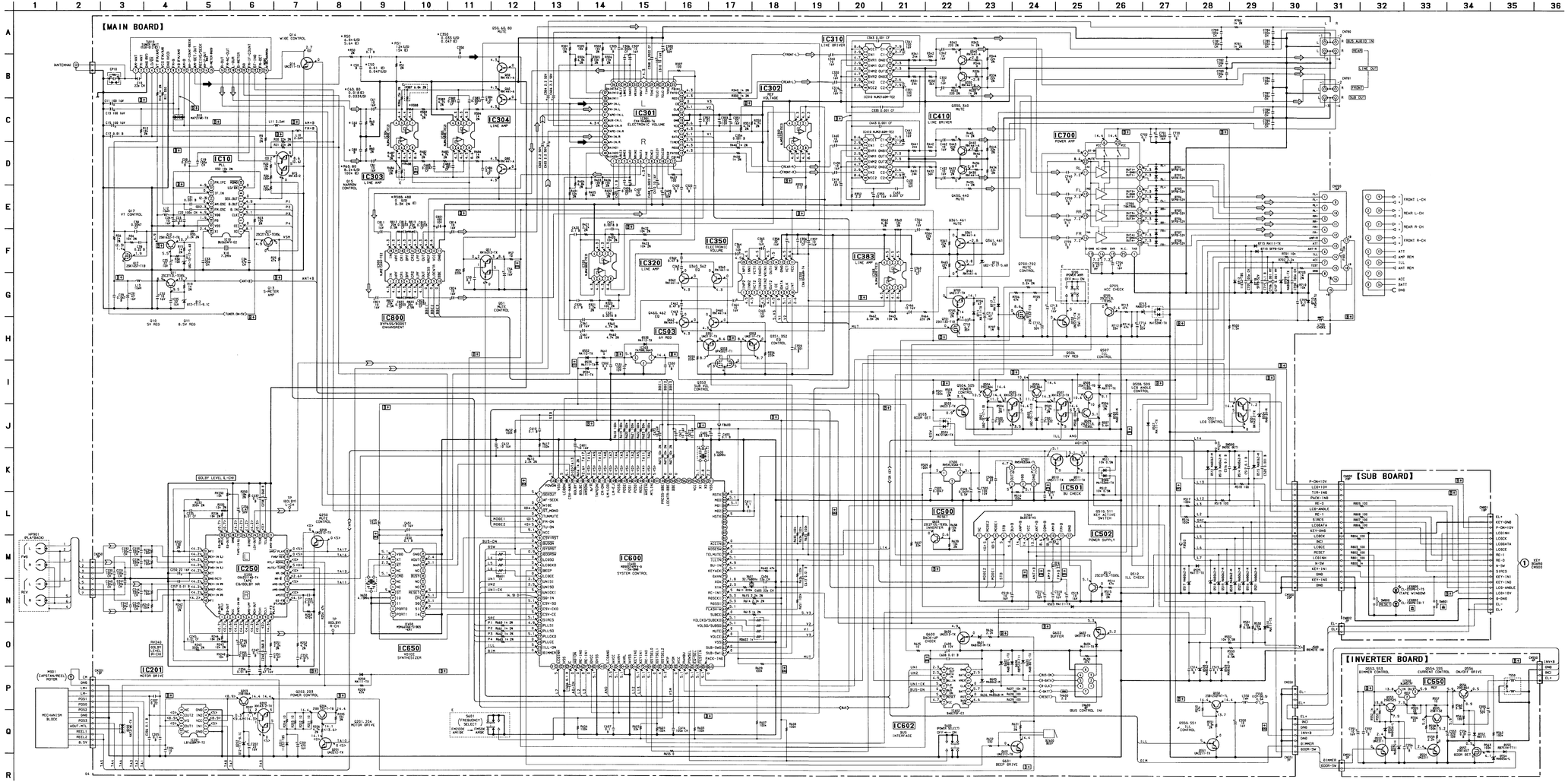
[SUB BOARD] (SIDE A)

[SUB BOARD] (SIDE B)

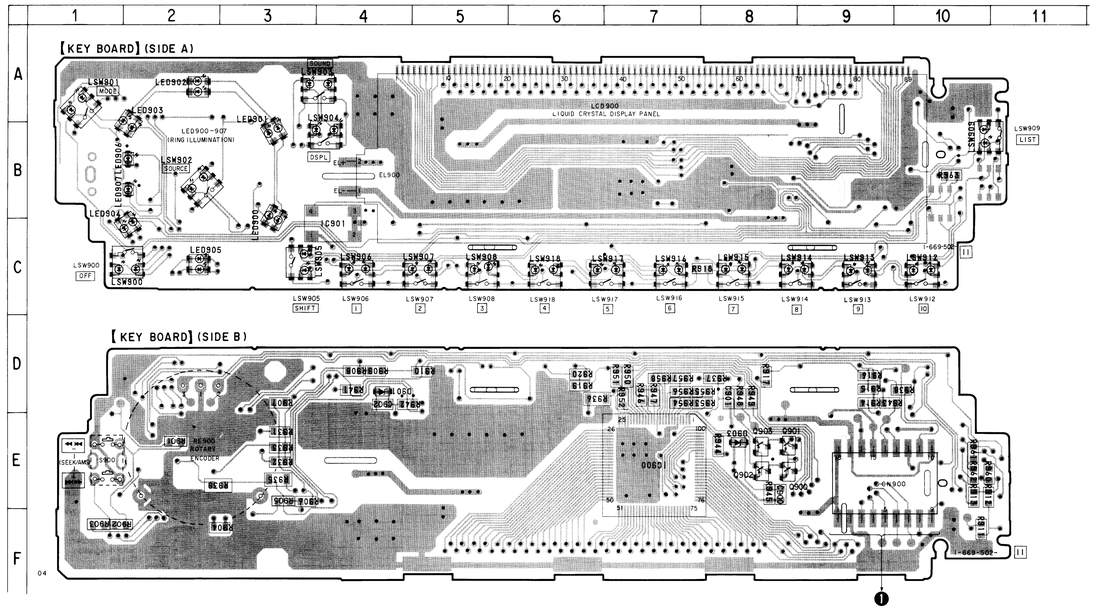
MECHANISM BLOCK

6-5. SCHEMATIC DIAGRAM — MAIN SECTION — • Refer to page 53 for IC Block Diagrams.

SEE ADDITIONAL INFORMATION



6-6. PRINTED WIRING BOARD — DISPLAY SECTION —



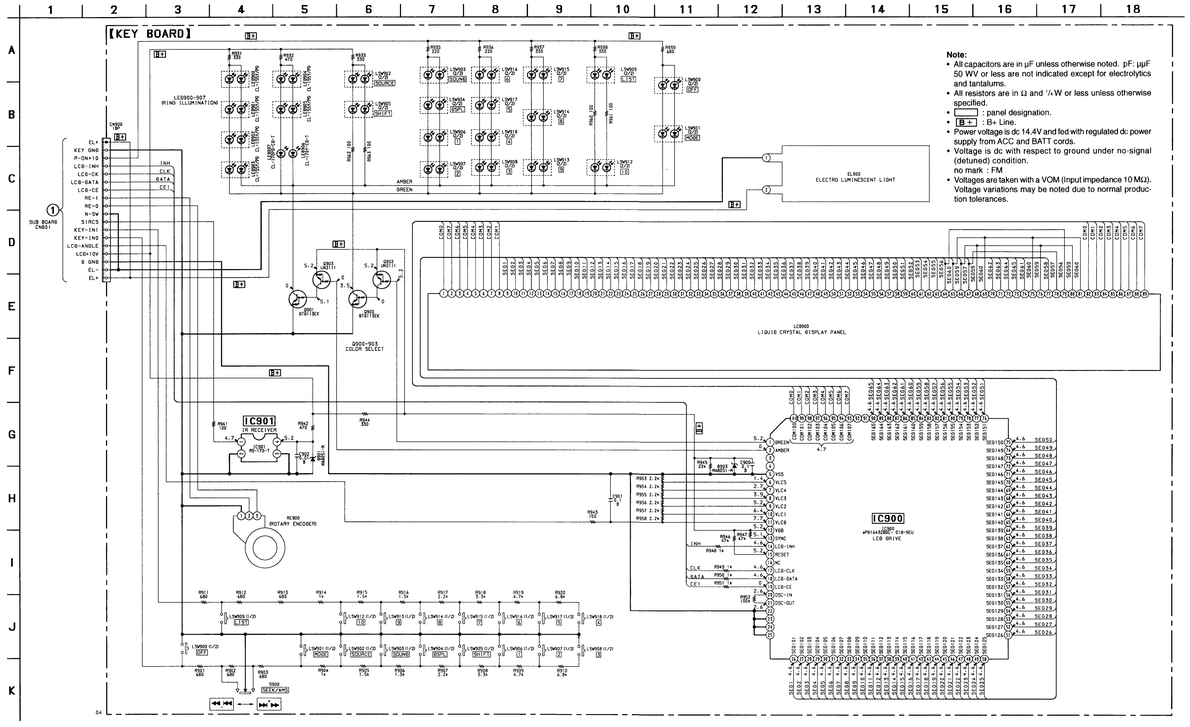
• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D901	D-4	LED904	C-2
D903	E-8	LED905	C-2
		LED906	B-2
IC900	E-7	LED907	B-2
IC901	C-4		
		Q900	E-8
LED900	B-3	Q901	E-8
LED901	B-3	Q902	E-8
LED902	A-2	Q903	E-8
LED903	A-2		

Note:
• ● : Through hole.
• ▨ : Pattern from the side which enables seeing. (The other layers' patterns are not indicated.)

Caution:
Pattern face side: Parts on the pattern face side seen from the (Side B) pattern face are indicated.
Parts face side: Parts on the parts face side seen from the (Side A) parts face are indicated.

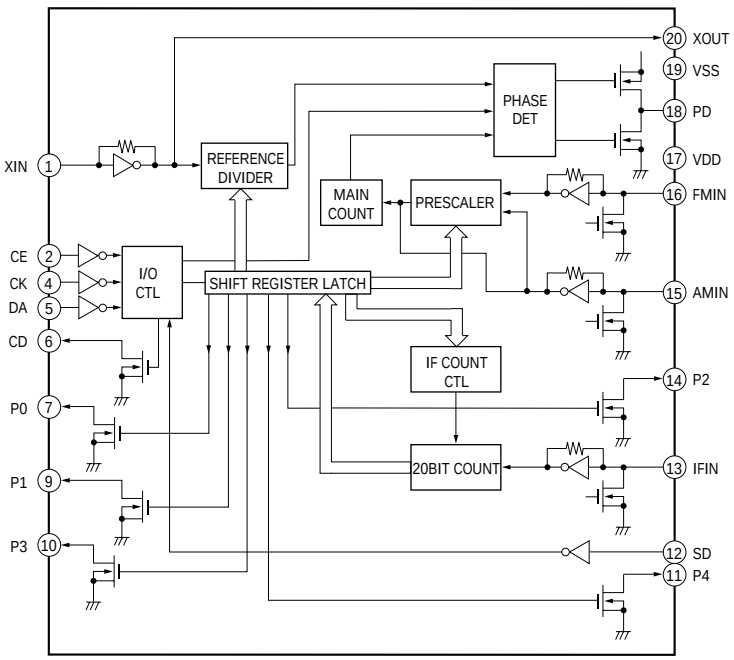
6-7. SCHEMATIC DIAGRAM — DISPLAY SECTION —



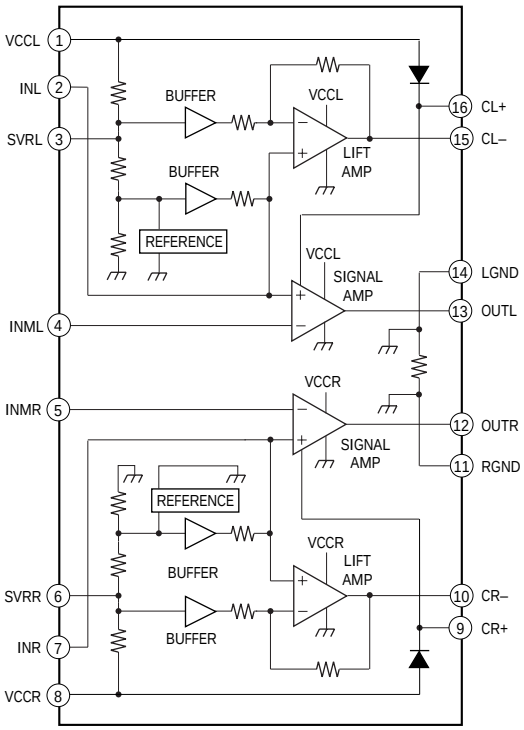
Note:
• All capacitors are in μF unless otherwise noted. pF: μμF 50 WV or less are not indicated except for electrolytics and tantalums.
• All resistors are in Ω and ¼ W or less unless otherwise specified.
• ▭ : panel designation.
• B+ : B+ Line.
• Power voltage is dc 14.4V and fed with regulated dc power supply from ACC and BATT cords.
• Voltage is dc with respect to ground under no-signal (detuned) condition.
no mark : FM
• Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.

• IC Block Diagrams

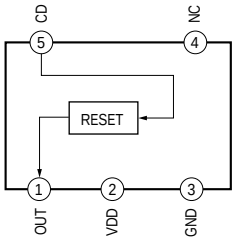
IC10 BU2624FV-E2



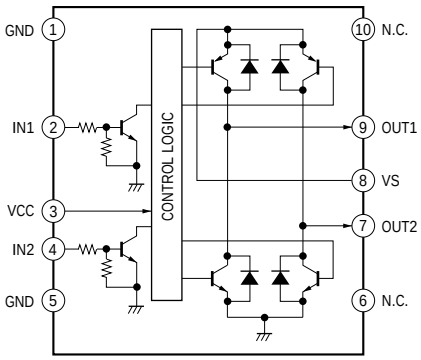
IC310, 410 NJM2160M-TE2



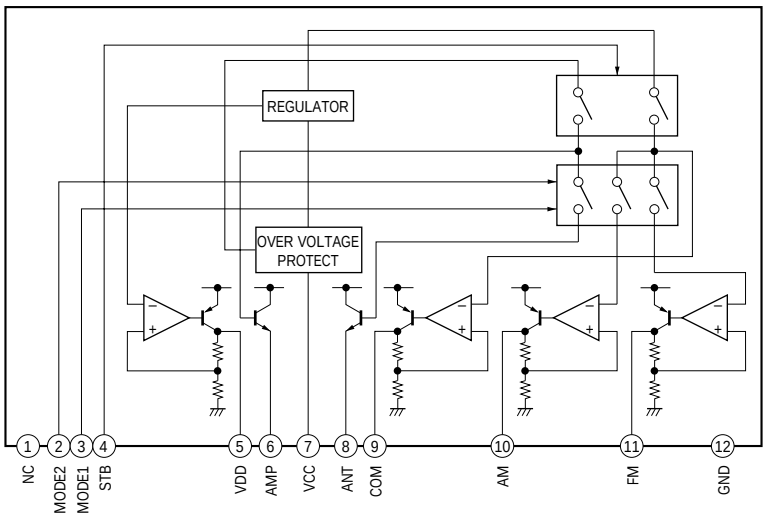
IC501 RN5VD33AA-TL



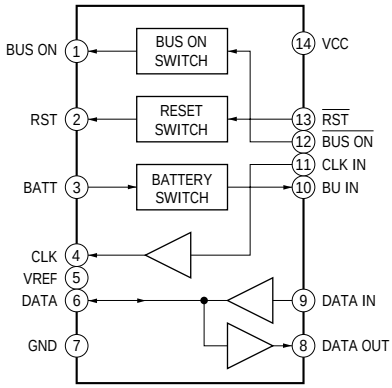
IC201 LB1638MTP-T2



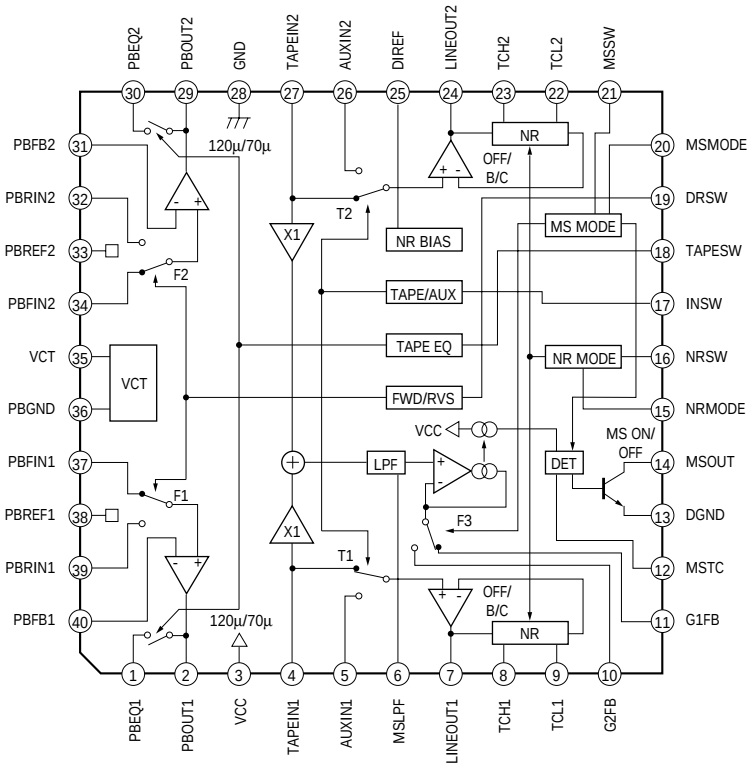
IC500 BA3918-V3



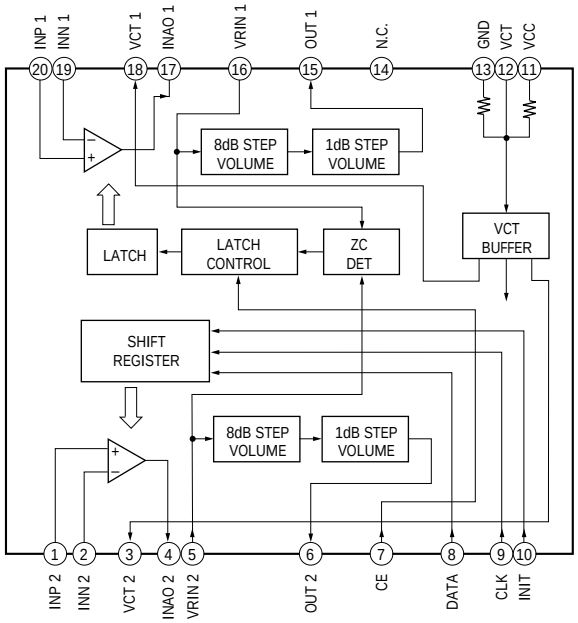
IC602 BA8270F-E2



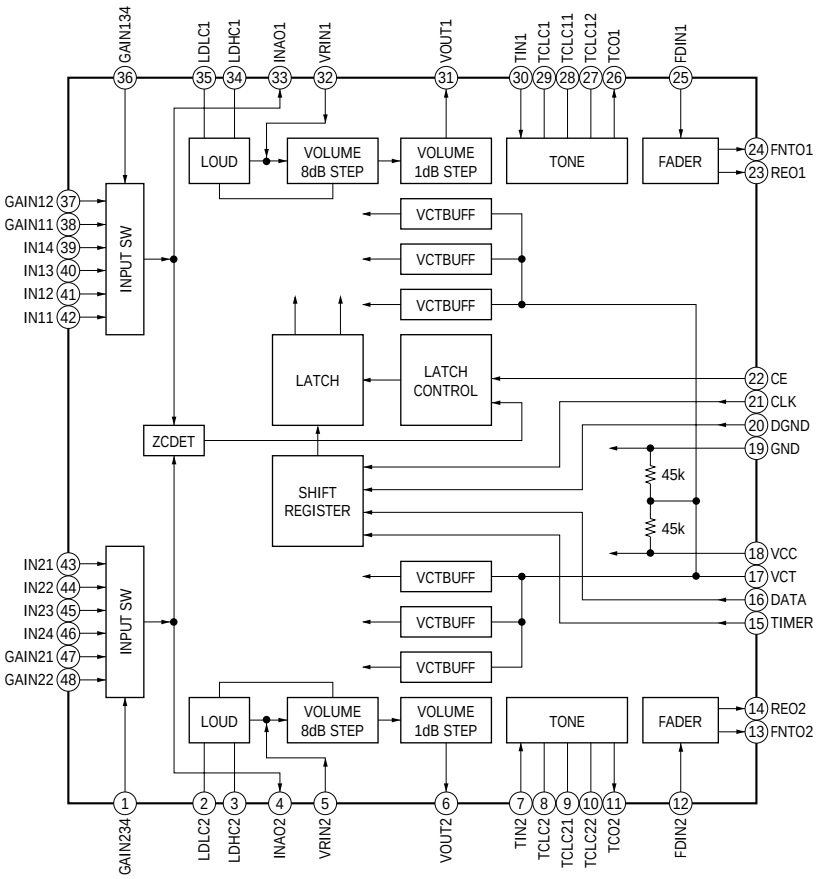
IC250 CXA2511AQ



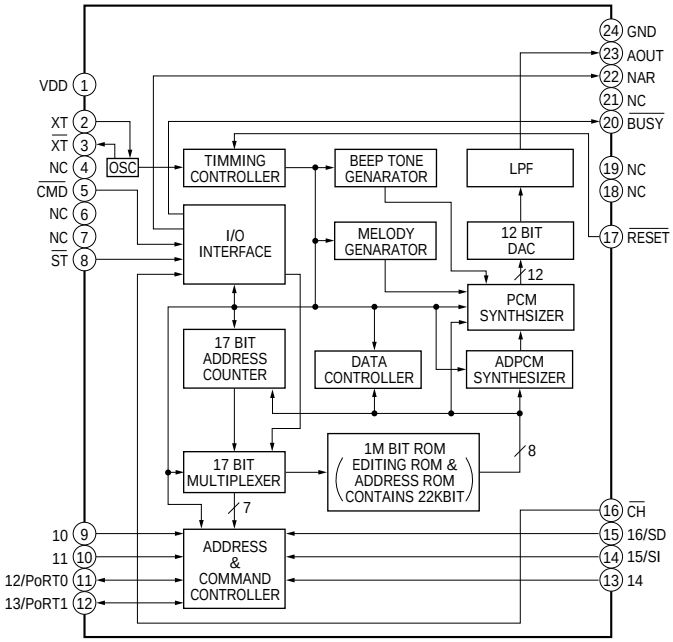
IC350 CXA1846N-T4



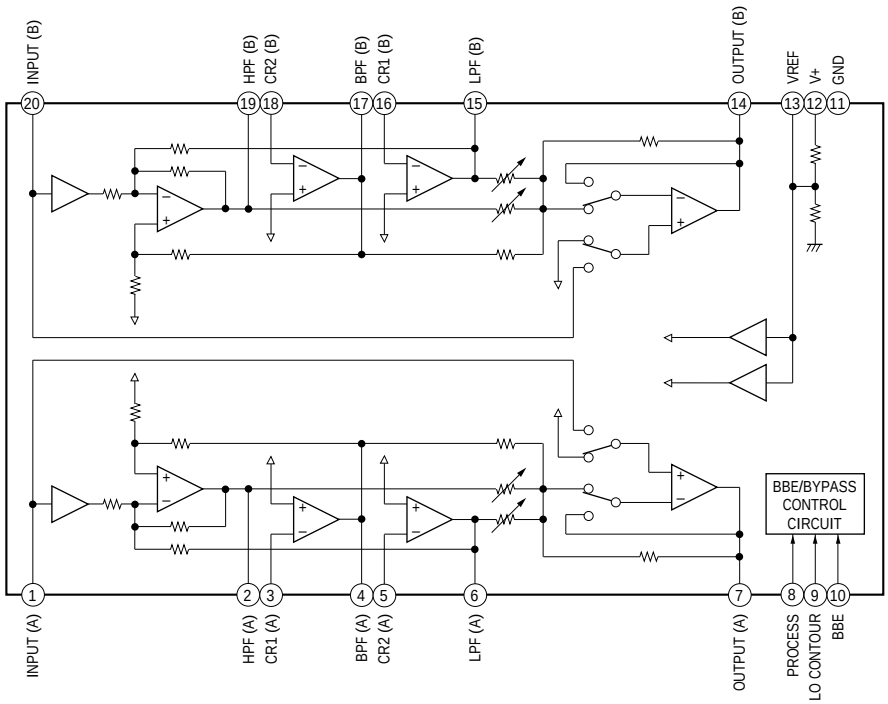
IC301 CXA1946BQ-T6



IC650 MSM6654A-519GS



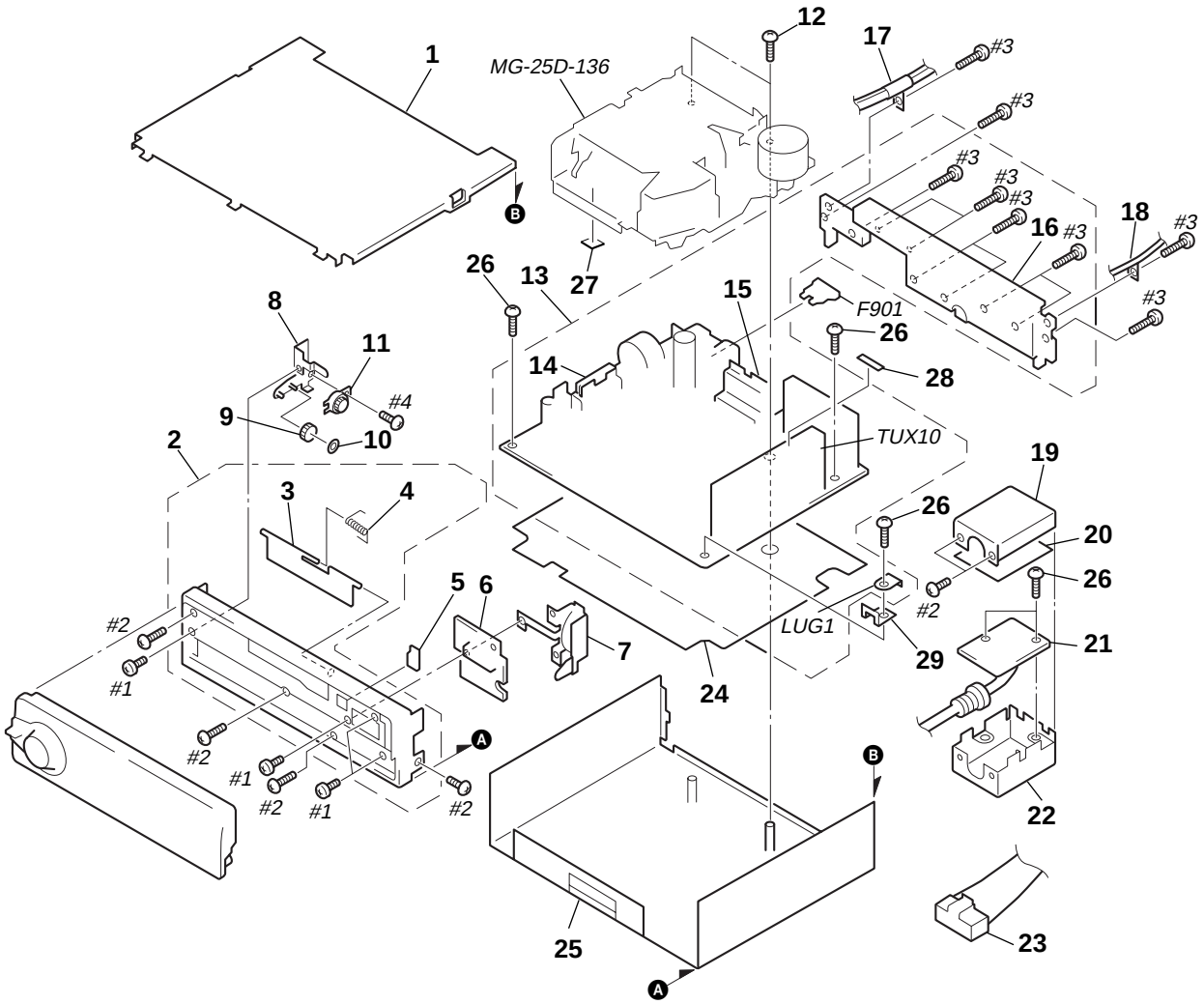
IC800 NJM2150AV-TE2



SECTION 7
EXPLODED VIEWS

NOTE:
- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) ... (RED)
  ↑ Parts Color ↑ Cabinet's Color
- Accessories and packing materials and hardware (# mark) list are given in the last of this parts list.

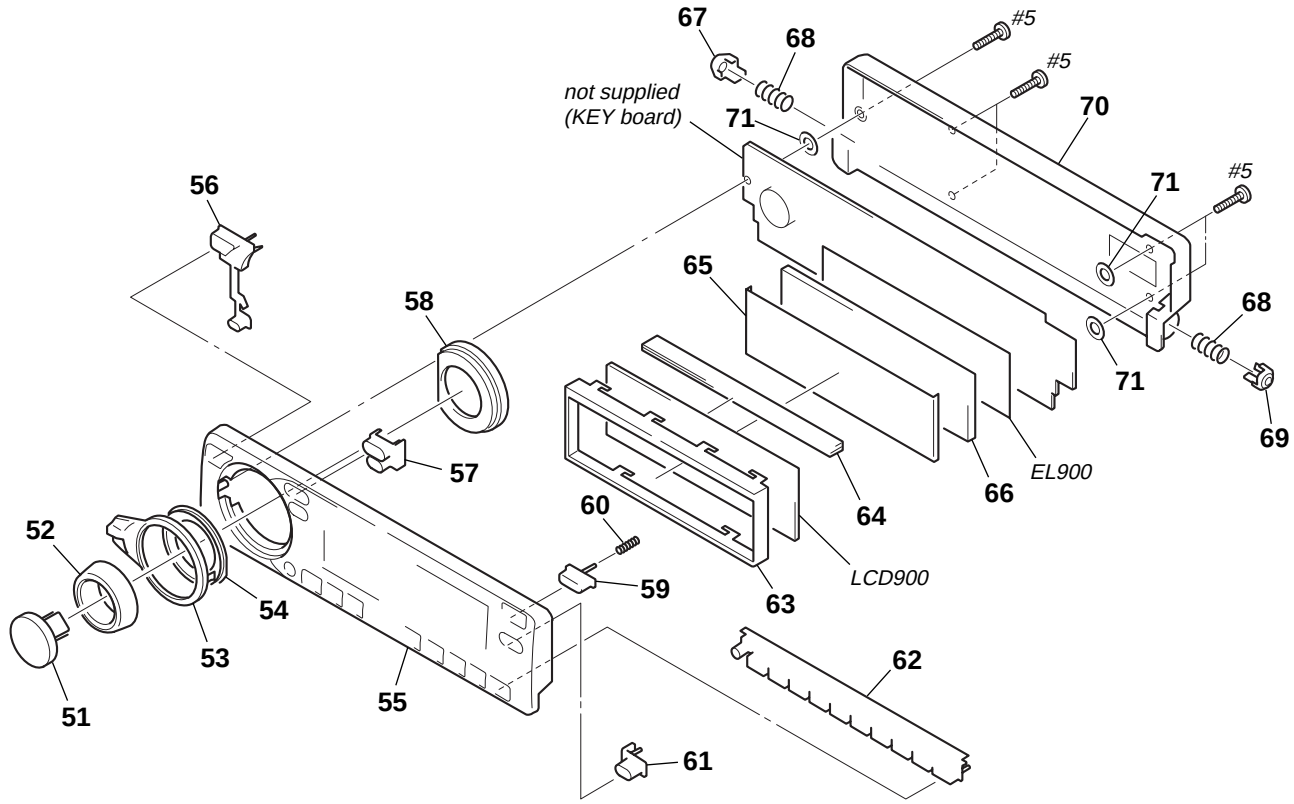
7-1. CHASSIS SECTION



Ref. No.	Part No.	Description	Remark
* 1	3-022-316-01	COVER	
2	X-3375-092-1	PANEL ASSY, SUB	
3	3-922-165-92	DOOR, CASSETTE	
4	3-935-003-01	SPRING (C DOOR), TORSION	
5	3-022-338-01	BUTTON (EJECT)	
* 6	1-669-656-11	SUB BOARD	
7	X-3375-068-1	LOCK ASSY	
8	X-3375-066-1	BRACKET (GEAR) ASSY	
9	3-011-170-01	GEAR (HOLDER)	
10	3-341-752-11	WASHER, POLYETHYLENE	
11	3-953-235-01	DAMPER, OIL	
12	3-919-171-01	SCREW (2.6X6) (C TIGHT)	
* 13	A-3317-038-A	MAIN BOARD, COMPLETE (E)	
* 13	A-3317-040-A	MAIN BOARD, COMPLETE (US)	
* 14	3-011-078-01	BRACKET (POWER IC)	
* 15	3-022-317-01	BRACKET (AMP)	
* 16	3-022-306-01	HEAT SINK	

Ref. No.	Part No.	Description	Remark
17	1-783-495-11	CORD (WITH CONNECTOR) (INVERTER)	
18	1-777-246-11	CORD (WITH CONNECTOR) (ANT)	
19	3-937-282-01	CASE (UPPER)	
* 20	3-938-138-01	SHEET (E)	
21	A-3313-646-A	INVERTER BOARD, COMPLETE	
22	3-937-812-01	CASE (LOWER)	
23	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
* 24	3-022-307-01	INSULATED PLATE (US)	
* 24	3-022-313-01	INSULATED PLATE (E)	
* 25	X-3375-081-1	CHASSIS ASSY	
26	3-915-923-01	SCREW, GROUND POINT	
* 27	3-026-471-01	SHEET (MECHANISM DECK)	
* 28	3-355-209-01	PLATE (B), GROUND	
* 29	3-023-774-01	PLATE (LOCK), GROUND	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
* LUG1	1-537-738-21	TERMINAL, EARTH	
TUX10	A-3282-045-A	TUNER UNIT (TUX-012(E))	

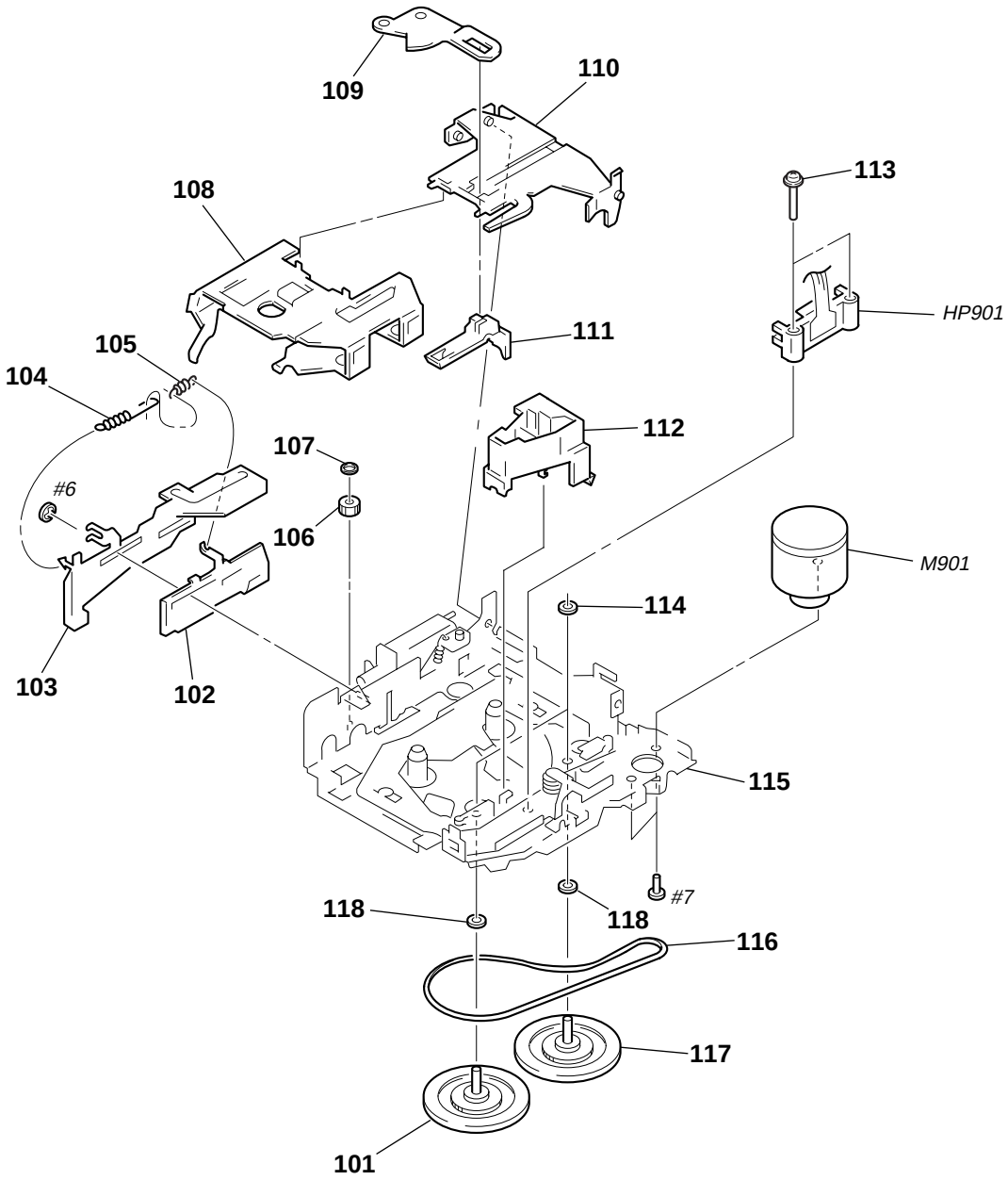
7-2. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	3-022-329-01	BUTTON (SOURCE)	
52	3-022-322-01	KNOB	
53	3-022-323-01	LEVER (SHUTTLE)	
54	3-022-324-01	PLATE (SHUTTLE), LIGHT GUIDE	
55	X-3375-966-1	PANEL SUB ASSY, FRONT (US)	
55	X-3375-967-1	PANEL SUB ASSY, FRONT (E)	
56	3-022-330-01	BUTTON (MODE)	
57	3-022-331-01	BUTTON (SOUND)	
58	3-022-325-01	PLATE (RING), LIGHT GUIDE	
59	3-022-333-01	BUTTON (OPEN)	
60	3-932-225-01	SPRING (OPEN)	
61	3-022-334-01	BUTTON (LIST)	

Ref. No.	Part No.	Description	Remark
62	3-022-332-01	BUTTON (10 KEY)	
* 63	3-022-327-01	PLATE (LCD), GROUND	
64	1-694-414-11	CONDUCTOR BOARD, CONNECTION	
* 65	3-022-328-01	ILLUMINATOR (LCD)	
* 66	3-022-326-01	PLATE (LCD), LIGHT GUIDE	
67	3-010-999-01	BEARING (L)	
68	3-010-998-01	SPRING (BEARING)	
69	3-011-000-01	BEARING (R)	
70	3-022-319-01	PANEL, FRONT BACK	
71	3-027-109-01	WASHER, POLYETHYLENE	
EL900	1-517-766-11	LIGHT, ELECTRO LUMINESCENT	
LCD900	1-803-107-11	DISPLAY PANEL, LIQUID CRYSTAL	

7-3. MECHANISM DECK SECTION (MG-25D-136)



Ref. No.	Part No.	Description	Remark
101	A-3291-667-A	CLUTCH (FR) ASSY	
102	3-019-130-01	LEVER (LDG-A)	
103	3-019-131-01	LEVER (LDG-B)	
104	3-020-539-01	SPRING (LD-1), TENSION	
105	3-020-540-01	SPRING (LD-2), TENSION	
106	3-020-542-01	GEAR (LOADING FT)	
107	3-341-753-11	WASHER, POLYETHYLENE	
108	3-020-533-01	HOUSING	
109	3-020-532-01	ARM (SUCTION)	
110	3-020-534-01	HANGER	
111	3-933-346-01	CATCHER	
112	3-933-344-01	GUIDE (C)	
113	3-014-798-01	SCREW (HEAD), SPECIAL	
114	3-364-151-01	WASHER	
115	X-3375-625-1	CHASSIS (SV) ASSY (D)	
116	3-017-302-01	BELT (25)	
117	3-936-853-01	FLYWHEEL (F)	
118	3-701-437-21	WASHER	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	

SECTION 8
ELECTRICAL PARTS LIST

INVERTER **KEY**

NOTE:
- Due to standardization, replacements in the par ts list ma y be diff erent from the par ts specified in the diag rams or the components used on the set.
- -XX and -X mean standardized parts, so the y ma y ha ve some diff erence from the original one.
- RESIST ORS
  All resistors are in ohms.
  METAL:Metal-film resistor .
  METAL OXIDE: Metal o xide-film resistor .
  F:nonflammable
- Items mar ked "*"are not stoc ked since the y are seldom required f or routine ser vice . Some delay should be anticipated when ordering these items.
- SEMICONDUCT ORS
  In each case , u : μ, for e xample:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

When indicating parts by reference number , please include the board.

Ref. No.	Part No.	Description			Remark
	A-3313-646-A	INVERTER BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C551	1-126-157-11	ELECT	10uF	20%	16V
C552	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C553	1-126-934-11	ELECT	220uF	20%	10V
C554	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C555	1-124-257-00	ELECT	2.2uF	20%	50V
C556	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
		< CONNECTOR >			
* CN550	1-564-507-11	PLUG, CONNECTOR 4P			
CN551	1-564-505-11	PLUG, CONNECTOR 2P			
		< DIODE >			
D550	8-719-422-49	DIODE MA8056-L			
D551	8-719-422-80	DIODE MA8075-H-TX			
D552	8-719-404-49	DIODE MA111			
D553	8-719-033-43	DIODE RB751H			
D554	8-719-422-49	DIODE MA8056-L			
		< IC >			
IC550	8-759-495-75	IC NJM317F			
		< TRANSISTOR >			
Q552	8-729-421-22	TRANSISTOR UN2211			
Q553	8-729-026-68	TRANSISTOR 2SD2525(TP)			
Q554	8-729-421-22	TRANSISTOR UN2211			
Q555	8-729-903-46	TRANSISTOR 2SB1132-P			
Q556	8-729-016-11	TRANSISTOR 2SD1507M			
Q557	8-729-021-94	FET 2SK1657-T1B			
		< RESISTOR >			
R552	1-216-198-00	RES,CHIP	1K	5%	1/8W
R553	1-216-198-00	RES,CHIP	1K	5%	1/8W
R555	1-216-158-00	RES,CHIP	22	5%	1/8W
R556	1-216-158-00	RES,CHIP	22	5%	1/8W
R557	1-216-001-00	METAL CHIP	10	5%	1/10W
R558	1-216-097-00	RES,CHIP	100K	5%	1/10W
R559	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R560	1-216-063-00	RES,CHIP	3.9K	5%	1/10W
R561	1-216-180-00	RES,CHIP	180	5%	1/8W
R562	1-216-097-00	RES,CHIP	100K	5%	1/10W
R563	1-216-097-00	RES,CHIP	100K	5%	1/10W
		< TRANSFORMER >			
T550	1-431-831-11	TRANSFORMER, OSCILLATION (EL)			
**********					
		KEY BOARD			
		**********			
	1-694-414-11	CONDUCTOR BOARD, CONNECTION			
*	3-022-326-01	PLATE (LCD), LIGHT GUIDE			
*	3-022-327-01	PLATE (LCD), GROUND			
*	3-022-328-01	ILLUMINATOR (LCD)			
	3-327-119-01	SPACER (A)			
		< CAPACITOR >			
C900	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C901	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C902	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
		< CONNECTOR >			
CN900	1-778-183-11	PLUG, CONNECTOR 18P			
		< DIODE >			
D901	8-719-420-90	DIODE MA8051-M			
D903	8-719-420-90	DIODE MA8051-M			
		< ELECTRO LUMINESCENT LIGHT >			
EL900	1-517-766-11	LIGHT, ELECTRO LUMINESCENT			
		< IC >			
IC900	8-759-496-75	IC uPD16432BGC-018-9EU			
IC901	8-749-012-25	IC RS-170-TU			
		< LIQUID CRYSTAL DISPLAY >			
LCD900	1-803-107-11	DISPLAY PANEL, LIQUID CRYSTAL			
		< DIODE >			
LED900	8-719-987-45	LED CL-155Y/PG-CD			
LED901	8-719-987-45	LED CL-155Y/PG-CD			
LED902	8-719-987-45	LED CL-155Y/PG-CD			
LED903	8-719-987-45	LED CL-155Y/PG-CD			
LED904	8-719-987-45	LED CL-155Y/PG-CD			
LED905	8-719-987-45	LED CL-155Y/PG-CD			

KEY MAIN

Ref. No.	Part No.	Description	Remark
LED906	8-719-033-13	LED CL-170Y-CD-T	
LED907	8-719-033-14	LED CL-170PG-CD-T	
		< SWITCH >	
LSW900	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (OFF)	
LSW901	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (MODE)	
LSW902	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SOURCE)	
LSW903	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SOUND)	
LSW904	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (DSPL)	
LSW905	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (SHIFT)	
LSW906	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (1)	
LSW907	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (2)	
LSW908	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (3)	
LSW909	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (LIST)	
LSW912	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (10)	
LSW913	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (9)	
LSW914	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (8)	
LSW915	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (7)	
LSW916	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (6)	
LSW917	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (5)	
LSW918	1-762-620-11	SWITCH, KEY BOARD (WITH LED) (4)	
		< TRANSISTOR >	
Q900	8-729-904-66	TRANSISTOR DTD113EK	
Q901	8-729-904-66	TRANSISTOR DTD113EK	
Q902	8-729-424-08	TRANSISTOR UN2111	
Q903	8-729-424-08	TRANSISTOR UN2111	
		< RESISTOR >	

Ref. No.	Part No.	Description			Remark
R901	1-216-045-00	METAL CHIP	680	5%	1/10W
R902	1-216-045-00	METAL CHIP	680	5%	1/10W
R903	1-216-045-00	METAL CHIP	680	5%	1/10W
R904	1-216-049-11	RES,CHIP	1K	5%	1/10W
R905	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R906	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R907	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R908	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R909	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R910	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R911	1-216-045-00	METAL CHIP	680	5%	1/10W
R912	1-216-045-00	METAL CHIP	680	5%	1/10W
R913	1-216-045-00	METAL CHIP	680	5%	1/10W
R914	1-216-049-11	RES,CHIP	1K	5%	1/10W
R915	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R916	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R917	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R918	1-216-061-00	METAL CHIP	3.3K	5%	1/10W
R919	1-216-065-00	RES,CHIP	4.7K	5%	1/10W
R920	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R931	1-216-037-00	METAL CHIP	330	5%	1/10W
R932	1-216-041-00	METAL CHIP	470	5%	1/10W
R933	1-216-037-00	METAL CHIP	330	5%	1/10W
R935	1-216-182-00	RES,CHIP	220	5%	1/8W

Ref. No.	Part No.	Description			Remark
R936	1-216-182-00	RES,CHIP	220	5%	1/8W
R937	1-216-037-00	METAL CHIP	330	5%	1/10W
R938	1-216-037-00	METAL CHIP	330	5%	1/10W
R939	1-216-045-00	METAL CHIP	680	5%	1/10W
R941	1-216-025-00	RES,CHIP	100	5%	1/10W
R942	1-216-041-00	METAL CHIP	470	5%	1/10W
R943	1-216-025-00	RES,CHIP	100	5%	1/10W
R944	1-216-037-00	METAL CHIP	330	5%	1/10W
R945	1-216-081-00	METAL CHIP	22K	5%	1/10W
R946	1-216-089-00	RES,CHIP	47K	5%	1/10W
R947	1-216-089-00	RES,CHIP	47K	5%	1/10W
R948	1-216-049-11	RES,CHIP	1K	5%	1/10W
R949	1-216-049-11	RES,CHIP	1K	5%	1/10W
R950	1-216-049-11	RES,CHIP	1K	5%	1/10W
R951	1-216-049-11	RES,CHIP	1K	5%	1/10W
R952	1-216-097-00	RES,CHIP	100K	5%	1/10W
R953	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R954	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R955	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R956	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R957	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R958	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R960	1-216-025-00	RES,CHIP	100	5%	1/10W
R961	1-216-025-00	RES,CHIP	100	5%	1/10W
R962	1-216-025-00	RES,CHIP	100	5%	1/10W
R963	1-216-025-00	RES,CHIP	100	5%	1/10W
		< ROTARY ENCODER >			
RE900	1-475-014-11	ENCODER, ROTARY			
		< SWITCH >			
S900	1-771-290-11	SWITCH, SLIDE (SEEK/AMS)			
**********					
*	A-3317-038-A	MAIN BOARD, COMPLETE (E)			
*	A-3317-040-A	MAIN BOARD, COMPLETE (US)			
		**********			
*	3-011-078-01	BRACKET (POWER IC)			
*	3-022-306-01	HEAT SINK			
*	3-022-317-01	BRACKET (AMP)			
*	3-025-352-01	PLATE (INV), SHIELD			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< BUZZER >			
BZ600	1-504-920-11	BUZZER			
		< CAPACITOR >			
C10	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C11	1-126-933-11	ELECT	100uF	20%	16V
C13	1-126-933-11	ELECT	100uF	20%	16V
C15	1-126-933-11	ELECT	100uF	20%	16V
C17	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V

Ref. No.	Part No.	Description			Remark
C19	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C20	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C21	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C22	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C23	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C24	1-104-951-11	ELECT	10uF	20%	16V
C25	1-104-952-11	ELECT	22uF	20%	16V
C29	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C31	1-104-953-11	ELECT	47uF	20%	16V
C32	1-104-951-11	ELECT	10uF	20%	16V
C33	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C34	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C35	1-104-952-11	ELECT	22uF	20%	16V
C38	1-104-547-11	FILM CHIP	0.0047uF	5%	16V
C39	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C50	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V (US)
C50	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V (E)
C51	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C53	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C54	1-104-951-11	ELECT	10uF	20%	16V
C60	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V (E)
C60	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (US)
C61	1-104-951-11	ELECT	10uF	20%	16V
C80	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V (E)
C80	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (US)
C81	1-104-951-11	ELECT	10uF	20%	16V
C201	1-126-935-11	ELECT	470uF	20%	16V
C202	1-104-952-11	ELECT	22uF	20%	16V
C204	1-117-370-11	CERAMIC CHIP	10uF		10V
C205	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C206	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C207	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C230	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C231	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C232	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C233	1-104-533-11	FILM CHIP	330PF	5%	50V
C234	1-104-533-11	FILM CHIP	330PF	5%	50V
C235	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C236	1-104-941-11	ELECT	0.47uF	20%	50V
C237	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C238	1-164-344-11	CERAMIC CHIP	0.068uF	10%	50V
C240	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C241	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C242	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C243	1-104-533-11	FILM CHIP	330PF	5%	50V
C244	1-104-533-11	FILM CHIP	330PF	5%	50V
C245	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C246	1-104-941-11	ELECT	0.47uF	20%	50V
C247	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C248	1-164-344-11	CERAMIC CHIP	0.068uF	10%	50V
C250	1-104-952-11	ELECT	22uF	20%	16V
C251	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C252	1-163-023-00	CERAMIC CHIP	0.015uF	10%	50V
C253	1-163-023-00	CERAMIC CHIP	0.015uF	10%	50V
C254	1-104-953-11	ELECT	47uF	20%	16V
C255	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C256	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C257	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C303	1-104-943-11	ELECT	2.2uF	20%	50V
C304	1-104-943-11	ELECT	2.2uF	20%	50V
C305	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C306	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C307	1-104-951-11	ELECT	10uF	20%	16V
C308	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C309	1-104-941-11	ELECT	0.47uF	20%	50V
C310	1-104-951-11	ELECT	10uF	20%	16V
C316	1-104-952-11	ELECT	22uF	20%	16V
C320	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C321	1-163-012-00	CERAMIC CHIP	0.0018uF	10%	50V
C322	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C330	1-104-951-11	ELECT	10uF	20%	16V
C331	1-115-175-11	ELECT	100uF	20%	16V
C332	1-104-951-11	ELECT	10uF	20%	16V
C333	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C340	1-104-951-11	ELECT	10uF	20%	16V
C341	1-115-175-11	ELECT	100uF	20%	16V
C342	1-104-951-11	ELECT	10uF	20%	16V
C343	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C350	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V (E)
C350	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (US)
C351	1-104-952-11	ELECT	22uF	20%	16V
C352	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C353	1-104-955-11	ELECT	100uF	20%	10V
C354	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C355	1-104-951-11	ELECT	10uF	20%	16V
C356	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C357	1-104-951-11	ELECT	10uF	20%	16V
C358	1-104-952-11	ELECT	22uF	20%	16V
C359	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C360	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C361	1-104-952-11	ELECT	22uF	20%	16V
C362	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C363	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C364	1-104-951-11	ELECT	10uF	20%	16V
C365	1-104-951-11	ELECT	10uF	20%	16V
C366	1-104-951-11	ELECT	10uF	20%	16V
C382	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C383	1-104-547-11	FILM CHIP	0.0047uF	5%	16V
C384	1-104-551-11	FILM CHIP	0.01uF	5%	16V

MAIN

Ref. No.	Part No.	Description			Remark
C403	1-104-943-11	ELECT	2.2uF	20%	50V
C404	1-104-943-11	ELECT	2.2uF	20%	50V
C405	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C406	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C407	1-104-951-11	ELECT	10uF	20%	16V
C408	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C409	1-104-941-11	ELECT	0.47uF	20%	50V
C410	1-104-951-11	ELECT	10uF	20%	16V
C416	1-104-952-11	ELECT	22uF	20%	16V
C420	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C421	1-163-012-00	CERAMIC CHIP	0.0018uF	10%	50V
C422	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C430	1-104-951-11	ELECT	10uF	20%	16V
C431	1-115-175-11	ELECT	100uF	20%	16V
C432	1-104-951-11	ELECT	10uF	20%	16V
C433	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C440	1-104-951-11	ELECT	10uF	20%	16V
C441	1-115-175-11	ELECT	100uF	20%	16V
C442	1-104-951-11	ELECT	10uF	20%	16V
C443	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C461	1-104-952-11	ELECT	22uF	20%	16V
C462	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C463	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C464	1-104-951-11	ELECT	10uF	20%	16V
C465	1-104-951-11	ELECT	10uF	20%	16V
C466	1-104-951-11	ELECT	10uF	20%	16V
C482	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C483	1-104-547-11	FILM CHIP	0.0047uF	5%	16V
C484	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C500	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C501	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C503	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C504	1-125-701-11	DOUBLE LAYERS	0.047F		5.5V
C505	1-104-955-11	ELECT	100uF	20%	10V
C506	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C507	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C510	1-104-951-11	ELECT	10uF	20%	16V
C511	1-104-952-11	ELECT	22uF	20%	16V
C513	1-104-951-11	ELECT	10uF	20%	16V
C514	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C515	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C516	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C517	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C518	1-104-951-11	ELECT	10uF	20%	16V
C520	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C530	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C531	1-104-955-11	ELECT	100uF	20%	10V
C532	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C550	1-104-951-11	ELECT	10uF	20%	16V
C601	1-104-951-11	ELECT	10uF	20%	16V
C602	1-124-229-00	ELECT	33uF	20%	10V
C603	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C604	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C605	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C606	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C607	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C608	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C609	1-124-229-00	ELECT	33uF	20%	10V
C610	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C611	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C612	1-104-951-11	ELECT	10uF	20%	16V
C613	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C614	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C650	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C651	1-104-951-11	ELECT	10uF	20%	16V
C671	1-104-951-11	ELECT	10uF	20%	16V
C672	1-104-951-11	ELECT	10uF	20%	16V
C673	1-104-951-11	ELECT	10uF	20%	16V
C701	1-111-233-11	ELECT	5600uF	20%	16V
C702	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C703	1-115-334-11	FILM	0.47uF	5%	50V
C704	1-104-953-11	ELECT	47uF	20%	16V
C705	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C706	1-137-364-11	FILM	0.001uF	5%	50V
C707	1-137-364-11	FILM	0.001uF	5%	50V
C708	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C709	1-115-326-11	FILM	0.1uF	5%	50V
C710	1-126-572-11	ELECT	4.7uF	20%	35V
C711	1-104-953-11	ELECT	47uF	20%	16V
C712	1-126-301-11	ELECT	1uF	20%	50V
C713	1-104-951-11	ELECT	10uF	20%	16V
C714	1-126-572-11	ELECT	4.7uF	20%	35V
C715	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C720	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C740	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C750	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C760	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C770	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C780	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C781	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C782	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C783	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C784	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C785	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C786	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C787	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C788	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C789	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C801	1-104-955-11	ELECT	100uF	20%	10V
C811	1-104-951-11	ELECT	10uF	20%	16V
C812	1-104-545-11	FILM CHIP	0.0033uF	5%	16V
C813	1-104-545-11	FILM CHIP	0.0033uF	5%	16V
C814	1-104-951-11	ELECT	10uF	20%	16V
C821	1-104-951-11	ELECT	10uF	20%	16V
C822	1-104-545-11	FILM CHIP	0.0033uF	5%	16V
C823	1-104-545-11	FILM CHIP	0.0033uF	5%	16V

Ref. No.	Part No.	Description	Remark
C824	1-104-951-11	ELECT 10uF 20%	16V
		< CONNECTOR >	
* CN201	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P	
CN250	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P	
CN500	1-770-411-11	CONNECTOR, BOARD TO BOARD 20P	
CN551	1-564-510-11	PLUG, CONNECTOR 7P	
CN600	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)	
CN700	1-774-701-11	PIN, CONNECTOR 16P	
		< JACK >	
CN780	1-774-699-21	JACK, PIN 4P (BUS AUDIO IN, LINE OUT REAR)	
CN781	1-774-699-21	JACK, PIN 4P (LINE OUT FRONT, SUB OUT)	
		< SPARK GAP >	
* CP10	1-517-422-11	GAP, SPARK	
		< DIODE >	
D10	8-719-040-04	DIODE MA721WK-(TX)	
D11	8-719-158-15	DIODE RD5.6S-B	
D12	8-719-977-25	DIODE DTZ9.1C	
D200	8-719-040-04	DIODE MA721WK-(TX)	
D201	8-719-200-82	DIODE 11ES2	
D202	8-719-977-25	DIODE DTZ9.1C	
D250	8-719-404-49	DIODE MA111	
D501	8-719-056-88	DIODE UDZ-TE-17-11B	
D502	8-719-056-88	DIODE UDZ-TE-17-11B	
D503	8-719-423-32	DIODE MA8120-M	
D504	8-719-423-32	DIODE MA8120-M	
D505	8-719-404-49	DIODE MA111	
D506	8-719-400-20	DIODE MA152WA	
D507	8-719-404-49	DIODE MA111	
D508	8-719-422-64	DIODE MA8062-M	
D509	8-719-422-64	DIODE MA8062-M	
D510	8-719-404-49	DIODE MA111	
D512	8-719-422-64	DIODE MA8062-M	
D513	8-719-422-64	DIODE MA8062-M	
D514	8-719-422-64	DIODE MA8062-M	
D515	8-719-422-64	DIODE MA8062-M	
D516	8-719-422-64	DIODE MA8062-M	
D517	8-719-422-64	DIODE MA8062-M	
D518	8-719-422-64	DIODE MA8062-M	
D519	8-719-422-64	DIODE MA8062-M	
D520	8-719-422-64	DIODE MA8062-M	
D521	8-719-422-64	DIODE MA8062-M	
D522	8-719-422-64	DIODE MA8062-M	
D523	8-719-404-49	DIODE MA111	
D524	8-719-040-04	DIODE MA721WK-(TX)	
D525	8-719-404-49	DIODE MA111	
D530	8-719-067-56	DIODE MA112-TX	
D532	8-719-067-56	DIODE MA112-TX	

Ref. No.	Part No.	Description	Remark
D533	8-719-404-49	DIODE MA111	
D534	8-719-404-49	DIODE MA111	
D601	8-719-017-94	DIODE MA8180	
D602	8-719-017-94	DIODE MA8180	
D603	8-719-017-94	DIODE MA8180	
D604	8-719-404-49	DIODE MA111	
D605	8-719-422-64	DIODE MA8062-M	
D606	8-719-977-12	DIODE DTZ6.8B	
D608	8-719-033-43	DIODE RB751H	
D701	8-719-313-73	DIODE SFPB-52	
D702	8-719-313-73	DIODE SFPB-52	
D703	8-719-313-73	DIODE SFPB-52	
D704	8-719-313-73	DIODE SFPB-52	
D705	8-719-313-73	DIODE SFPB-52	
D706	8-719-313-73	DIODE SFPB-52	
D707	8-719-313-73	DIODE SFPB-52	
D708	8-719-313-73	DIODE SFPB-52	
D709	8-719-017-62	DIODE MA8068-L-TX	
D710	8-719-049-38	DIODE 1N5404TU	
D711	8-719-404-49	DIODE MA111	
D712	8-719-200-82	DIODE 11ES2	
D713	8-719-422-76	DIODE MA8075-M	
D714	8-719-801-78	DIODE 1SS184	
D715	8-719-404-49	DIODE MA111	
D716	8-719-158-15	DIODE RD5.6S-B	
D717	8-719-404-49	DIODE MA111	
D718	8-719-313-73	DIODE SFPB-52	
D719	8-719-313-73	DIODE SFPB-52	
		< IC LINK >	
F550	1-533-674-11	LINK, CHIP IC (ICP-S0.5) 0.5A	
		< FUSE >	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
		< FERRITE BEAD >	
FB500	1-414-233-21	INDUCTOR, FERRITE BEAD	
FB600	1-414-233-21	INDUCTOR, FERRITE BEAD	
		< IC >	
IC10	8-759-448-85	IC BU2624FV-E2	
IC201	8-759-823-87	IC LB1638M	
IC250	8-752-079-80	IC CXA2511AQ-T4	
IC301	8-752-078-67	IC CXA1946BQ-T6	
IC302	8-759-700-94	IC NJM5532M	
IC303	8-759-385-17	IC NJM4580E(TE2)	
IC304	8-759-385-17	IC NJM4580E(TE2)	
IC310	8-749-015-02	IC NJM2160M-TE2	
IC320	8-759-385-17	IC NJM4580E(TE2)	
IC350	8-752-083-07	IC CXA1846AN-T4	
IC383	8-759-385-17	IC NJM4580E(TE2)	
IC410	8-749-015-02	IC NJM2160M-TE2	

MAIN

Ref. No.	Part No.	Description	Remark
IC500	8-759-443-72	IC RH5VL43AA-T1	
IC501	8-759-495-76	IC RN5VD33AA-TL	
IC502	8-759-347-50	IC BA3918-V3	
IC503	8-759-540-27	IC TA78DL06AS	
IC600	8-759-547-05	IC MB90574PFV-G-134-BND	
IC602	8-759-449-89	IC BA8270F-E2	
IC650	8-759-530-58	IC MSM6654A-519GS-KR1	
IC700	8-759-486-44	IC TDA7386	
IC800	8-759-537-13	IC NJM2150AV-TE2	
		< CONNECTOR >	
* J10	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P	
		< JACK >	
J500	1-566-822-41	JACK (REMOTE IN)	
		< COIL >	
L10	1-414-146-31	INDUCTOR 2.2uH	
L11	1-414-146-31	INDUCTOR 2.2uH	
L12	1-410-204-31	INDUCTOR CHIP 10uH	
L13	1-412-006-31	INDUCTOR CHIP 10uH	
L500	1-410-513-11	INDUCTOR 22uH	
L550	1-414-712-21	INDUCTOR 1mH	
L650	1-410-204-31	INDUCTOR CHIP 10uH	
L700	1-416-712-21	COIL, CHOKE	
		< EARTH TERMINAL >	
* LUG1	1-537-738-21	TERMINAL, EARTH	
		< TRANSISTOR >	
Q10	8-729-808-02	TRANSISTOR 2SD1622-T-TD	
Q11	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q13	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q14	8-729-421-22	TRANSISTOR UN2211	
Q15	8-729-020-67	TRANSISTOR XN1A312-TX	
Q17	8-729-021-94	FET 2SK1657-T1B	
Q50	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q51	8-729-020-67	TRANSISTOR XN1A312-TX	
Q60	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q80	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q201	8-729-424-59	TRANSISTOR UN2212	
Q202	8-729-020-67	TRANSISTOR XN1A312-TX	
Q203	8-729-016-11	TRANSISTOR 2SD1507M	
Q204	8-729-106-60	TRANSISTOR 2SB1115A	
Q250	8-729-424-59	TRANSISTOR UN2212	
Q330	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q340	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q351	8-729-424-52	TRANSISTOR UN211F-TX	
Q352	8-729-424-52	TRANSISTOR UN211F-TX	
Q353	8-729-021-93	TRANSISTOR UPA502T-T1	
Q360	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q361	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q362	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q430	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	

Ref. No.	Part No.	Description	Remark
Q440	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q460	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q461	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q462	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q501	8-729-020-67	TRANSISTOR XN1A312-TX	
Q503	8-729-424-59	TRANSISTOR UN2212	
Q504	8-729-016-11	TRANSISTOR 2SD1507M	
Q505	8-729-020-67	TRANSISTOR XN1A312-TX	
Q506	8-729-016-11	TRANSISTOR 2SD1507M	
Q507	8-729-020-67	TRANSISTOR XN1A312-TX	
Q508	8-729-216-22	TRANSISTOR 2SA1162-G	
Q509	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q510	8-729-015-74	TRANSISTOR UN5111	
Q511	8-729-015-74	TRANSISTOR UN5111	
Q512	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q550	8-729-822-84	TRANSISTOR 2SB1202FAST	
Q551	8-729-421-22	TRANSISTOR UN2211	
Q600	8-729-424-59	TRANSISTOR UN2212	
Q601	8-729-424-59	TRANSISTOR UN2212	
Q602	8-729-403-35	TRANSISTOR UN5113	
Q603	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q700	8-729-424-52	TRANSISTOR UN211F-TX	
Q701	8-729-144-85	FET 2SK1133	
Q702	8-729-144-85	FET 2SK1133	
Q703	8-729-424-59	TRANSISTOR UN2212	
Q705	8-729-230-49	TRANSISTOR 2SC2712-YG	
		< RESISTOR >	
R9	1-208-437-61	RES,CHIP 1K 2% 1/10W	
R10	1-208-437-61	RES,CHIP 1K 2% 1/10W	
R11	1-216-037-00	METAL CHIP 330 5% 1/10W	
R12	1-208-462-61	RES,CHIP 10K 2% 1/10W	
R15	1-208-437-61	RES,CHIP 1K 2% 1/10W	
R19	1-208-437-61	RES,CHIP 1K 2% 1/10W	
R20	1-208-518-61	RES,CHIP 22K 2% 1/10W	
R21	1-208-518-61	RES,CHIP 22K 2% 1/10W	
R22	1-208-462-61	RES,CHIP 10K 2% 1/10W	
R23	1-208-462-61	RES,CHIP 10K 2% 1/10W	
R25	1-216-089-00	RES,CHIP 47K 5% 1/10W	
R26	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R27	1-216-845-11	METAL CHIP 100K 5% 1/16W	
R30	1-216-025-00	RES,CHIP 100 5% 1/10W	
R32	1-208-462-61	RES,CHIP 10K 2% 1/10W	
R34	1-208-462-61	RES,CHIP 10K 2% 1/10W	
R35	1-216-659-11	METAL CHIP 2.2K 0.5% 1/10W	
R36	1-208-437-61	RES,CHIP 1K 2% 1/10W	
R50	1-216-671-11	METAL CHIP 6.8K 0.5% 1/10W	(US)
R50	1-208-800-11	RES,CHIP 5.6K 0.5% 1/10W	(E)
R51	1-216-677-11	METAL CHIP 12K 0.5% 1/10W	(US)
R51	1-208-810-11	RES,CHIP 15K 2% 1/10W	(E)

Ref. No.	Part No.	Description			Remark
R53	1-216-105-00	RES,CHIP	220K	5%	1/10W
R57	1-216-001-00	METAL CHIP	10	5%	1/10W
R60	1-208-804-11	RES,CHIP	8.2K	0.5%	1/10W (US)
R60	1-216-097-00	RES,CHIP	100K	5%	1/10W (E)
R80	1-208-804-11	RES,CHIP	8.2K	0.5%	1/10W (US)
R80	1-216-097-00	RES,CHIP	100K	5%	1/10W (E)
R201	1-216-150-00	RES,CHIP	10	5%	1/8W
R202	1-216-150-00	RES,CHIP	10	5%	1/8W
R203	1-216-150-00	RES,CHIP	10	5%	1/8W
R204	1-216-150-00	RES,CHIP	10	5%	1/8W
R205	1-208-462-61	RES,CHIP	10K	2%	1/10W
R206	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R207	1-216-198-00	RES,CHIP	1K	5%	1/8W
R209	1-216-089-00	RES,CHIP	47K	5%	1/10W
R230	1-216-097-00	RES,CHIP	100K	5%	1/10W
R231	1-216-097-00	RES,CHIP	100K	5%	1/10W
R232	1-208-760-11	RES,CHIP	120	2%	1/10W
R233	1-218-764-11	RES,CHIP	330K	2%	1/10W
R234	1-208-812-11	RES,CHIP	18K	2%	1/10W
R235	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R240	1-216-097-00	RES,CHIP	100K	5%	1/10W
R241	1-216-097-00	RES,CHIP	100K	5%	1/10W
R242	1-208-760-11	RES,CHIP	120	2%	1/10W
R243	1-218-764-11	RES,CHIP	330K	2%	1/10W
R244	1-208-812-11	RES,CHIP	18K	2%	1/10W
R245	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R250	1-208-812-11	RES,CHIP	18K	0.5%	1/10W
R251	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R252	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R253	1-216-113-00	METAL CHIP	470K	5%	1/10W
R254	1-216-089-00	RES,CHIP	47K	5%	1/10W
R301	1-208-462-61	RES,CHIP	10K	2%	1/10W
R302	1-208-462-61	RES,CHIP	10K	2%	1/10W
R303	1-208-462-61	RES,CHIP	10K	2%	1/10W
R304	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R305	1-216-079-00	METAL CHIP	18K	5%	1/10W
R306	1-208-810-11	RES,CHIP	15K	2%	1/10W
R307	1-216-025-00	RES,CHIP	100	5%	1/10W
R320	1-208-462-61	RES,CHIP	10K	2%	1/10W
R321	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R330	1-208-437-61	RES,CHIP	1K	2%	1/10W
R331	1-216-082-00	METAL CHIP	24K	5%	1/10W
R332	1-208-086-00	RES,CHIP	36K	5%	1/10W
R333	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R334	1-208-518-61	RES,CHIP	22K	2%	1/10W
R335	1-208-437-61	RES,CHIP	1K	2%	1/10W
R336	1-216-295-00	SHORT	0		
R340	1-208-437-61	RES,CHIP	1K	2%	1/10W
R341	1-216-082-00	METAL CHIP	24K	5%	1/10W
R342	1-208-086-00	RES,CHIP	36K	5%	1/10W
R343	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R344	1-208-518-61	RES,CHIP	22K	2%	1/10W
R345	1-208-437-61	RES,CHIP	1K	2%	1/10W
R346	1-216-295-00	SHORT	0		
R350	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R351	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R352	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R353	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R355	1-216-105-00	RES,CHIP	220K	5%	1/10W
R356	1-216-105-00	RES,CHIP	220K	5%	1/10W
R360	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R362	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R363	1-208-462-61	RES,CHIP	10K	2%	1/10W
R364	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R365	1-208-518-61	RES,CHIP	22K	2%	1/10W
R382	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R383	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R384	1-208-437-61	RES,CHIP	1K	2%	1/10W
R386	1-208-810-11	RES,CHIP	15K	2%	1/10W
R387	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W (E)
R388	1-208-449-61	RES,CHIP	3.3K	2%	1/10W (E)
R388	1-216-295-00	SHORT	0		(US)
R401	1-208-462-61	RES,CHIP	10K	2%	1/10W
R402	1-208-462-61	RES,CHIP	10K	2%	1/10W
R403	1-208-462-61	RES,CHIP	10K	2%	1/10W
R404	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R405	1-216-079-00	METAL CHIP	18K	5%	1/10W
R406	1-208-810-11	RES,CHIP	15K	2%	1/10W
R407	1-216-025-00	RES,CHIP	100	5%	1/10W
R420	1-208-462-61	RES,CHIP	10K	2%	1/10W
R421	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R422	1-208-462-61	RES,CHIP	10K	2%	1/10W
R423	1-208-462-61	RES,CHIP	10K	2%	1/10W
R430	1-208-437-61	RES,CHIP	1K	2%	1/10W
R431	1-216-082-00	METAL CHIP	24K	5%	1/10W
R432	1-208-086-00	RES,CHIP	36K	5%	1/10W
R433	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R434	1-208-518-61	RES,CHIP	22K	2%	1/10W
R435	1-208-437-61	RES,CHIP	1K	2%	1/10W
R436	1-216-295-00	SHORT	0		
R440	1-208-437-61	RES,CHIP	1K	2%	1/10W
R441	1-216-082-00	METAL CHIP	24K	5%	1/10W
R442	1-208-086-00	RES,CHIP	36K	5%	1/10W
R443	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R444	1-208-518-61	RES,CHIP	22K	2%	1/10W
R445	1-208-437-61	RES,CHIP	1K	2%	1/10W
R446	1-216-295-00	SHORT	0		
R460	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R462	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R463	1-208-462-61	RES,CHIP	10K	2%	1/10W
R464	1-216-635-11	METAL CHIP	220	0.5%	1/10W

MAIN

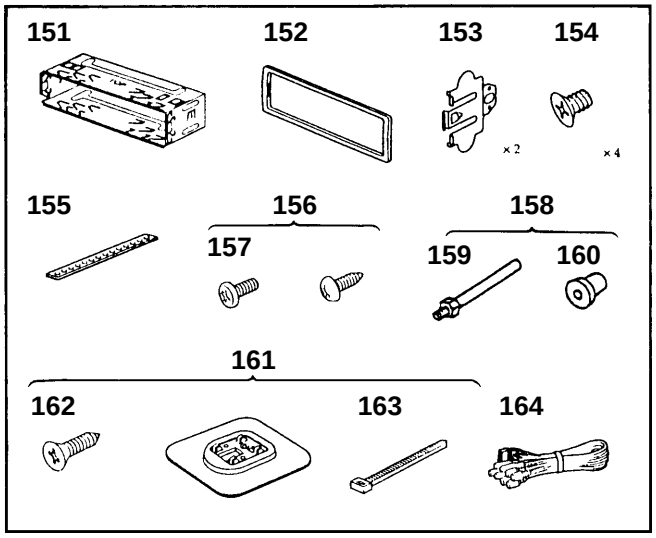
Ref. No.	Part No.	Description			Remark
R465	1-208-518-61	RES,CHIP	22K	2%	1/10W
R482	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R483	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R484	1-208-437-61	RES,CHIP	1K	2%	1/10W
R486	1-208-810-11	RES,CHIP	15K	2%	1/10W
R487	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W (E)
R488	1-208-449-61	RES,CHIP	3.3K	2%	1/10W (E)
R488	1-216-295-00	SHORT	0		(US)
R500	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R501	1-216-097-00	RES,CHIP	100K	5%	1/10W
R503	1-208-462-61	RES,CHIP	10K	2%	1/10W
R504	1-208-437-61	RES,CHIP	1K	2%	1/10W
R505	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R506	1-208-462-61	RES,CHIP	10K	2%	1/10W
R507	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R508	1-216-097-00	RES,CHIP	100K	5%	1/10W
R509	1-216-097-00	RES,CHIP	100K	5%	1/10W
R510	1-216-097-00	RES,CHIP	100K	5%	1/10W
R511	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R512	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R514	1-216-089-00	RES,CHIP	47K	5%	1/10W
R515	1-208-462-61	RES,CHIP	10K	2%	1/10W
R516	1-216-097-00	RES,CHIP	100K	5%	1/10W
R517	1-216-097-00	RES,CHIP	100K	5%	1/10W
R518	1-216-025-00	RES,CHIP	100	5%	1/10W
R519	1-216-025-00	RES,CHIP	100	5%	1/10W
R530	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R531	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R532	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R533	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R550	1-216-089-00	RES,CHIP	47K	5%	1/10W
R551	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R601	1-216-845-11	METAL CHIP	100K	5%	1/16W
R602	1-216-839-11	METAL CHIP	33K	5%	1/16W
R603	1-216-097-00	RES,CHIP	100K	5%	1/10W
R607	1-216-097-00	RES,CHIP	100K	5%	1/10W
R608	1-216-845-11	METAL CHIP	100K	5%	1/16W
R609	1-216-097-00	RES,CHIP	100K	5%	1/10W
R610	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R611	1-216-105-00	RES,CHIP	220K	5%	1/10W
R613	1-208-437-61	RES,CHIP	1K	2%	1/10W
R614	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R615	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R616	1-208-437-61	RES,CHIP	1K	2%	1/10W
R617	1-216-097-00	RES,CHIP	100K	5%	1/10W
R618	1-216-097-00	RES,CHIP	100K	5%	1/10W
R619	1-216-097-00	RES,CHIP	100K	5%	1/10W
R620	1-216-097-00	RES,CHIP	100K	5%	1/10W
R621	1-216-097-00	RES,CHIP	100K	5%	1/10W
R622	1-216-097-00	RES,CHIP	100K	5%	1/10W
R623	1-216-097-00	RES,CHIP	100K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R624	1-216-097-00	RES,CHIP	100K	5%	1/10W
R625	1-216-001-00	METAL CHIP	10	5%	1/10W
R626	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R627	1-208-462-61	RES,CHIP	10K	2%	1/10W
R628	1-216-025-00	RES,CHIP	100	5%	1/10W
R629	1-216-025-00	RES,CHIP	100	5%	1/10W
R630	1-216-089-00	RES,CHIP	47K	5%	1/10W
R631	1-208-437-61	RES,CHIP	1K	2%	1/10W
R632	1-216-815-11	METAL CHIP	330	5%	1/16W
R633	1-216-097-00	RES,CHIP	100K	5%	1/10W
R634	1-216-097-00	RES,CHIP	100K	5%	1/10W
R635	1-216-097-00	RES,CHIP	100K	5%	1/10W
R636	1-216-097-00	RES,CHIP	100K	5%	1/10W
R637	1-216-085-00	METAL CHIP	33K	5%	1/10W
R638	1-208-462-61	RES,CHIP	10K	2%	1/10W
R639	1-208-462-61	RES,CHIP	10K	2%	1/10W
R640	1-216-089-00	RES,CHIP	47K	5%	1/10W
R641	1-216-295-00	SHORT	0		
R651	1-216-097-00	RES,CHIP	100K	5%	1/10W
R652	1-216-845-11	METAL CHIP	100K	5%	1/16W
R655	1-216-864-11	METAL CHIP	0	5%	1/16W
R656	1-216-845-11	METAL CHIP	100K	5%	1/16W
R660	1-208-437-61	RES,CHIP	1K	2%	1/10W
R661	1-208-437-61	RES,CHIP	1K	2%	1/10W
R662	1-208-437-61	RES,CHIP	1K	2%	1/10W
R663	1-208-437-61	RES,CHIP	1K	2%	1/10W
R671	1-208-462-61	RES,CHIP	10K	2%	1/10W
R672	1-208-462-61	RES,CHIP	10K	2%	1/10W
R673	1-208-462-61	RES,CHIP	10K	2%	1/10W
R701	1-216-222-00	RES,CHIP	10K	5%	1/8W
R702	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R703	1-208-437-61	RES,CHIP	1K	2%	1/10W
R704	1-216-017-00	RES,CHIP	47	5%	1/10W
R705	1-208-462-61	RES,CHIP	10K	2%	1/10W
R706	1-216-089-00	RES,CHIP	47K	5%	1/10W
R707	1-216-121-00	METAL CHIP	1M	5%	1/10W
R708	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R709	1-216-295-00	SHORT	0		
R710	1-216-222-00	RES,CHIP	10K	5%	1/8W
R712	1-216-085-00	METAL CHIP	33K	5%	1/10W
R713	1-216-089-00	RES,CHIP	47K	5%	1/10W
R714	1-216-089-00	RES,CHIP	47K	5%	1/10W
R780	1-208-437-61	RES,CHIP	1K	2%	1/10W
R781	1-208-437-61	RES,CHIP	1K	2%	1/10W
R812	1-208-813-11	RES,CHIP	20K	0.50%	1/10W
R813	1-208-813-11	RES,CHIP	20K	0.50%	1/10W
R822	1-208-813-11	RES,CHIP	20K	0.50%	1/10W
R823	1-208-813-11	RES,CHIP	20K	0.50%	1/10W
		< NETWORK RESISTOR >			
RB601	1-233-412-11	RES, CHIP NETWORK	1.0K	(3216)	
RB602	1-233-412-11	RES, CHIP NETWORK	1.0K	(3216)	

Ref. No.	Part No.	Description			Remark
		< VARIABLE RESISTOR >			
RV230	1-238-090-11	RES, ADJ, CERMET 10K			
RV240	1-238-090-11	RES, ADJ, CERMET 10K			
		< SWITCH >			
S600	1-571-478-11	SWITCH, SLIDE (POWER SELECT)			
S601	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT) (E)			
S700	1-571-478-11	SWITCH, SLIDE (POWER AMP) (E)			
SW500	1-762-108-31	SWITCH, PUSH (1 KEY) (NOSE DET)			
		< THERMISTOR (POSITIVE) >			
TH600	1-801-792-21	THERMISTOR, POSITIVE			
		< TUNER >			
TUX10	A-3282-045-A	TUNER UNIT (TUX-012(E))			
		< VIBRATOR >			
X10	1-760-838-21	VIBRATOR, CRYSTAL (7.2MHz)			
X600	1-767-833-21	VIBRATOR, CERAMIC (3.68MHz)			
X601	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X650	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)			
**********					
*	1-669-656-11	SUB BOARD			
		**********			
		< CONNECTOR >			
CN800	1-779-170-11	SOCKET, CONNECTOR 20P			
CN801	1-779-169-11	SOCKET, CONNECTOR 18P			
CN802	1-778-330-21	PIN, CONNECTOR (PC BOARD) 2P			
		< DIODE >			
LED800	8-719-058-14	LED CL-220PG-C-TS (TAPE WINDOW)			
LED802	8-719-038-07	LED CL-190PG-CD-T (⏏)			
		< RESISTOR >			
R800	1-216-049-11	RES,CHIP	1K	5%	1/10W
R801	1-216-025-00	RES,CHIP	100	5%	1/10W
R802	1-216-025-00	RES,CHIP	100	5%	1/10W
R803	1-216-025-00	RES,CHIP	100	5%	1/10W
R804	1-216-025-00	RES,CHIP	100	5%	1/10W
R806	1-216-025-00	RES,CHIP	100	5%	1/10W
R807	1-216-025-00	RES,CHIP	100	5%	1/10W
R808	1-216-025-00	RES,CHIP	100	5%	1/10W
R809	1-216-025-00	RES,CHIP	100	5%	1/10W

Ref. No.	Part No.	Description	Remark
		< SWITCH >	
SW800	1-572-921-11	SWITCH, KEY BOARD (RESET)	
SW801	1-771-027-11	SWITCH, KEY BOARD (WITH LED) (⏏)	
**********			
		MISCELLANEOUS	
		**********	
17	1-783-495-11	CORD (WITH CONNECTOR) (INVERTER)	
18	1-777-246-11	CORD (WITH CONNECTOR) (ANT)	
23	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	
F901	1-532-877-11	FUSE (BLADE TYPE) (AUTO FUSE) 10A	
HP901	1-500-157-21	HEAD, MAGNETIC (PLAYBACK)	
M901	A-3291-665-A	MOTOR ASSY, MAIN (CAPSTAN/REEL)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-467-559-91	REMOTE COMMANDER (RM-X47) (E)	
	1-473-067-71	REMOTE COMMANDER (RM-X4S)	
	3-012-070-01	LABEL (SOUND) (2) (FOR RM-X4S)	
	3-864-309-11	MANUAL, INSTRUCTION, INSTALL (ENGLISH) (US)	
	3-864-309-21	MANUAL, INSTRUCTION, INSTALL (ENGLISH, SPANISH,CHINESE) (E)	
	3-864-310-11	MANUAL, INSTRUCTION (ENGLISH) (US)	
	3-864-310-21	MANUAL, INSTRUCTION (ENGLISH,SPANISH, CHINESE) (E)	
	9-939-081-01	LID, BATTERY CASE (FOR RM-X47) (E)	
	X-3373-926-1	CASE ASSY (XR)	
**********			
		**********	
		HARDWARE LIST	
		**********	
#1	7-621-772-30	SCREW +B 2X6	
#2	7-685-792-09	SCREW +PTT 2.6X6 (S)	
#3	7-685-794-09	SCREW +PTT 2.6X10 (S)	
#4	7-621-255-15	SCREW +P 2X3	
#5	7-685-105-19	SCREW +P 2X8 TYPE 2 NON-SLIT	
#6	7-624-104-04	STOP RING 2.0, TYPE -E	
#7	7-627-553-17	SCREW, PRECISION +P 2X2 TYPE 3	
**********			

Ref. No.	Part No.	Description	Remark
		PARTS FOR INSTALLATION AND CONNECTIONS	
		**********	
151	3-009-613-21	FRAME	
152	3-022-310-01	COLLAR	
153	3-934-787-11	SPRING, FITTING	
154	3-934-325-01	SCREW, +K (5X8) TAPPING	
155	3-924-961-01	SUPPORT (ND), FITTING (US)	
156	X-3368-725-1	SCREW ASSY, FITTING (US)	
157	7-682-560-04	SCREW +P 4X6 (US)	
158	X-3366-405-1	SCREW ASSY (EXP), FITTING (E)	
159	3-386-828-01	SCREW, FITTING (E)	
160	3-349-410-01	BUSHING (E)	
161	X-3373-432-1	BRACKET ASSY (FOR RM-X4S)	
162	7-685-248-14	SCREW +KTP 3X12 TYPE 4	
* 163	3-671-893-00	CLAMP (LOW TYPE)	
164	1-776-207-72	CORD (WITH CONNECTOR) (POWER)	



XR-C9100

SONY

US Model
E Model

SERVICE MANUAL

SUPPLEMENT-1

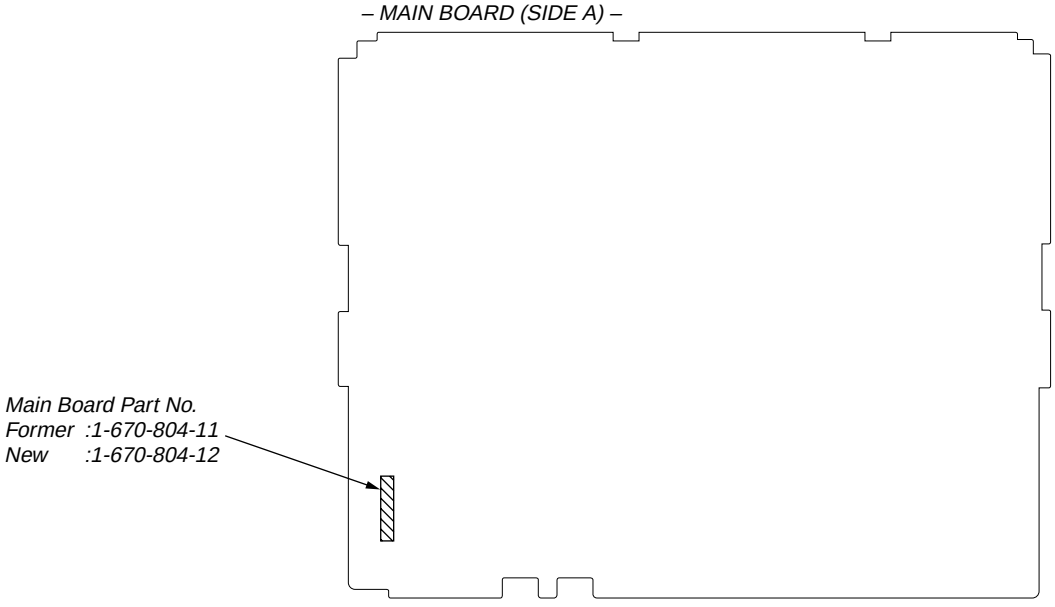
File this supplement with the service manual.

Subject : Change the Main Board and Sub Board

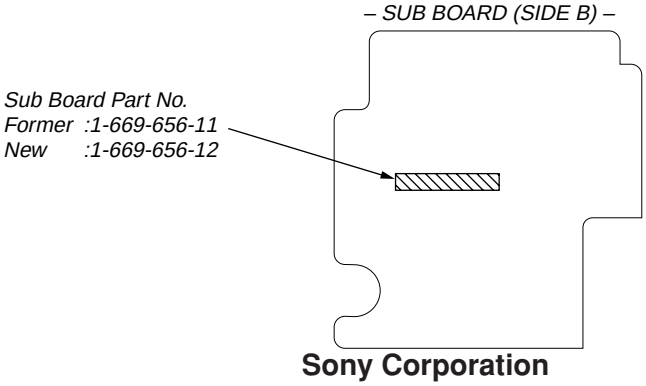
(ECN-CS802414, CS803160)

When performing service and inspection, check the suffix of the part number of the main board and sub board.
This service manual supplement-1 only describes the new main board and sub board.

– MAIN BOARD (SIDE A) –



– SUB BOARD (SIDE B) –



Sony Corporation
Personal & Mobile Communication Company

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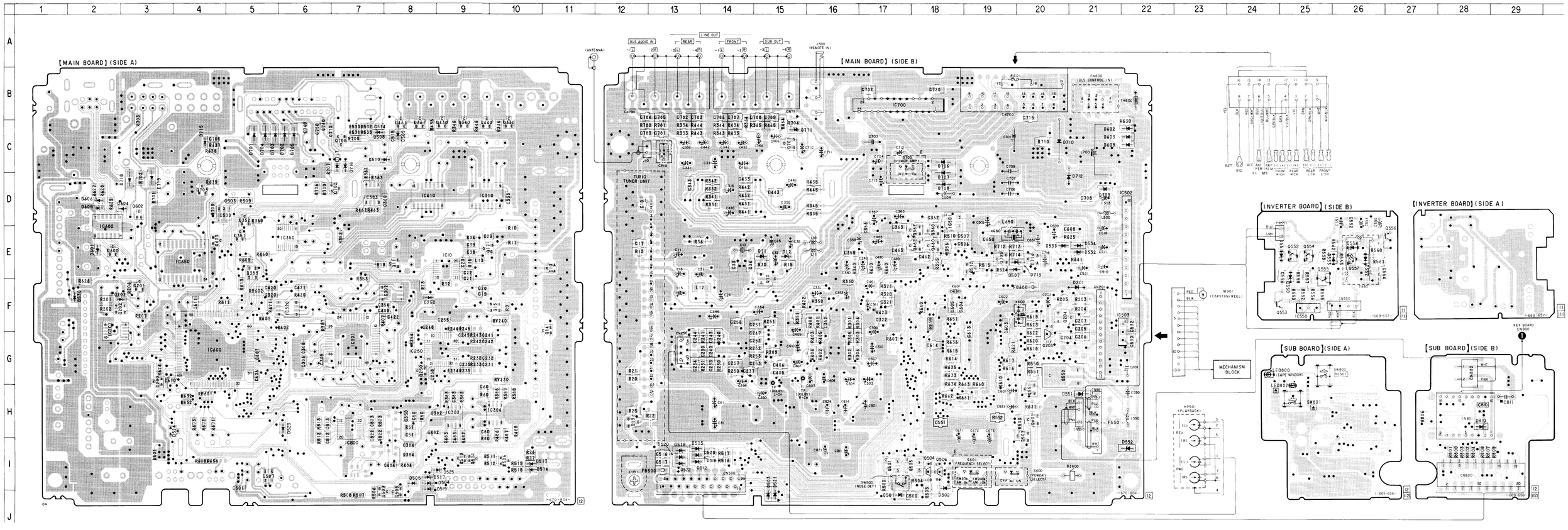
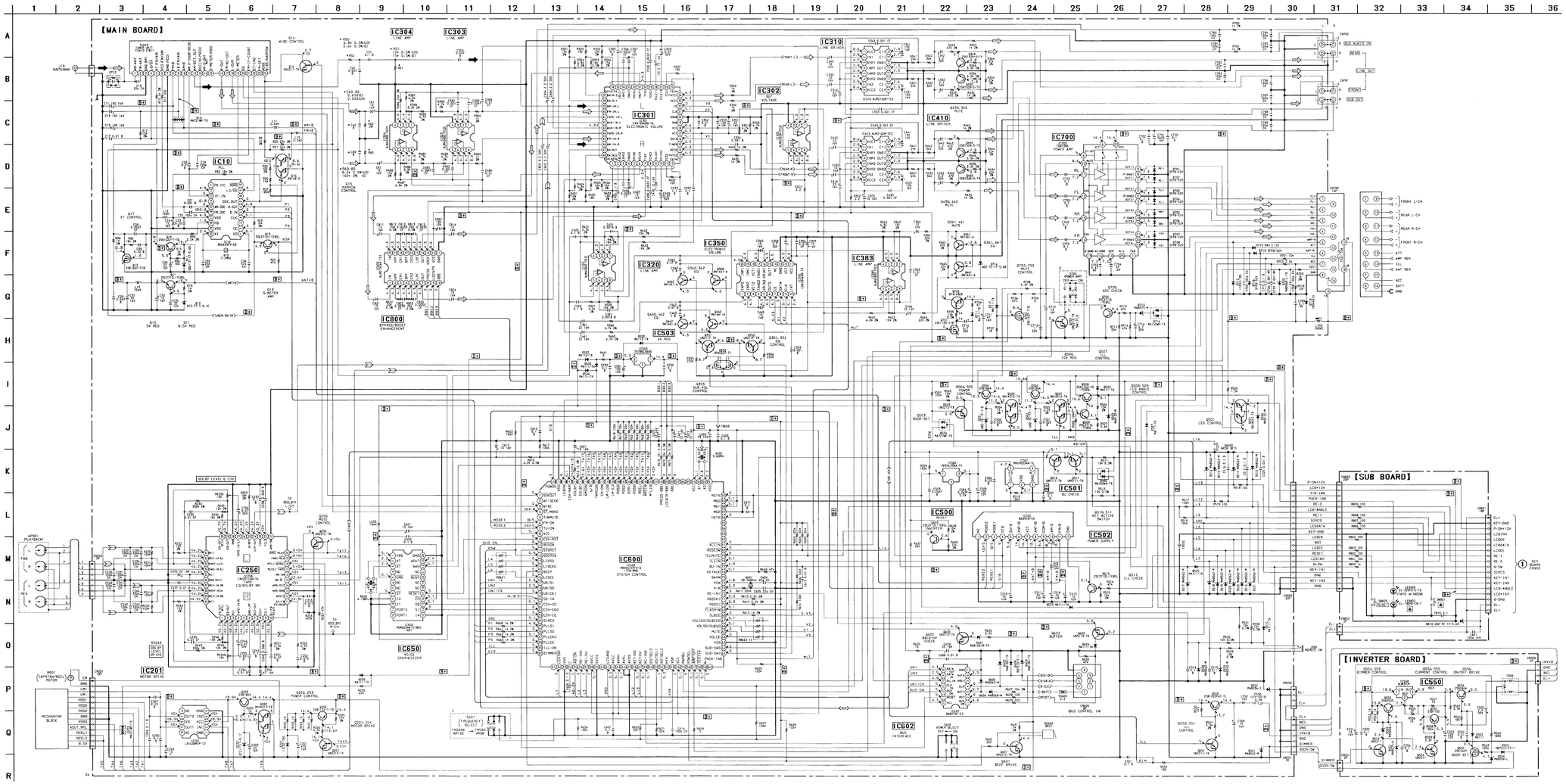
1. PRINTED WIRING BOARDS — MAIN SECTION — • Refer to page 4 for Semiconductor Location and Note.



2. SCHEMATIC DIAGRAM — MAIN SECTION —



3. ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u : μ, for example:
  uA.. : μA.. uPA.. : μPA..
  uPB.. : μPB.. uPC.. : μPC.. uPD.. : μPD..
- CAPACITORS
  uF : μF
- COILS
  uH : μH

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
*	A-3317-038-A	MAIN BOARD, COMPLETE (E)			
*	A-3317-040-A	MAIN BOARD, COMPLETE (US)			
		**********			
*	3-011-078-01	BRACKET (POWER IC)			
*	3-022-306-01	HEAT SINK			
*	3-022-317-01	BRACKET (AMP)			
*	3-025-352-01	PLATE (INV), SHIELD			
	7-685-794-09	SCREW +PTT 2.6X10 (S)			
		< BUZZER >			
BZ600	1-504-920-11	BUZZER			
		< CAPACITOR >			
C10	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C11	1-126-933-11	ELECT	100uF	20%	16V
C13	1-126-933-11	ELECT	100uF	20%	16V
C15	1-126-933-11	ELECT	100uF	20%	16V
C17	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C19	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C20	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C21	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C22	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C23	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C24	1-104-951-11	ELECT	10uF	20%	16V
C25	1-104-952-11	ELECT	22uF	20%	16V
C29	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C31	1-104-953-11	ELECT	47uF	20%	16V
C32	1-104-951-11	ELECT	10uF	20%	16V
C33	1-163-234-11	CERAMIC CHIP	20PF	5%	50V
C34	1-163-243-11	CERAMIC CHIP	47PF	5%	50V
C35	1-104-952-11	ELECT	22uF	20%	16V
C38	1-104-547-11	FILM CHIP	0.0047uF	5%	16V
C39	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C50	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C51	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C60	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V (E)
C60	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (US)
C61	1-104-951-11	ELECT	10uF	20%	16V
C80	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V (E)
C80	1-163-989-11	CERAMIC CHIP	0.033uF	10%	25V (US)
C81	1-104-951-11	ELECT	10uF	20%	16V
C201	1-126-935-11	ELECT	470uF	20%	16V

Ref. No.	Part No.	Description			Remark
C202	1-104-952-11	ELECT	22uF	20%	16V
C204	1-117-370-11	CERAMIC CHIP	10uF		10V
C205	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C206	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C207	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C230	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C231	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C232	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C233	1-104-533-11	FILM CHIP	330PF	5%	50V
C234	1-104-533-11	FILM CHIP	330PF	5%	50V
C235	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C236	1-104-941-11	ELECT	0.47uF	20%	50V
C237	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C238	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C240	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C241	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C242	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C243	1-104-533-11	FILM CHIP	330PF	5%	50V
C244	1-104-533-11	FILM CHIP	330PF	5%	50V
C245	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C246	1-104-941-11	ELECT	0.47uF	20%	50V
C247	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C248	1-164-344-11	CERAMIC CHIP	0.068uF	10%	25V
C250	1-104-952-11	ELECT	22uF	20%	16V
C251	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C252	1-163-023-00	CERAMIC CHIP	0.015uF	10%	50V
C253	1-163-023-00	CERAMIC CHIP	0.015uF	10%	50V
C254	1-104-953-11	ELECT	47uF	20%	16V
C255	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C256	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C257	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C303	1-104-943-11	ELECT	2.2uF	20%	50V
C304	1-104-943-11	ELECT	2.2uF	20%	50V
C305	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C306	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C307	1-104-951-11	ELECT	10uF	20%	16V
C308	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C309	1-104-941-11	ELECT	0.47uF	20%	50V
C310	1-104-951-11	ELECT	10uF	20%	16V
C316	1-104-952-11	ELECT	22uF	20%	16V
C320	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C321	1-163-012-00	CERAMIC CHIP	0.0018uF	10%	50V
C322	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C330	1-104-951-11	ELECT	10uF	20%	16V

MAIN

Ref. No.	Part No.	Description			Remark
C331	1-115-175-11	ELECT	100uF	20%	16V
C332	1-104-943-11	ELECT	2.2uF	20%	50V
C333	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C340	1-104-951-11	ELECT	10uF	20%	16V
C341	1-115-175-11	ELECT	100uF	20%	16V
C342	1-104-943-11	ELECT	2.2uF	20%	50V
C343	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C350	1-104-760-11	CERAMIC CHIP	0.047uF	10%	50V
C351	1-104-952-11	ELECT	22uF	20%	16V
C352	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C353	1-104-955-11	ELECT	100uF	20%	10V
C354	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C355	1-104-951-11	ELECT	10uF	20%	16V
C356	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C357	1-104-951-11	ELECT	10uF	20%	16V
C358	1-126-572-11	ELECT	4.7uF	20%	35V
C359	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C360	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C361	1-104-952-11	ELECT	22uF	20%	16V
C362	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C363	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C365	1-104-951-11	ELECT	10uF	20%	16V
C366	1-104-951-11	ELECT	10uF	20%	16V
C382	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C383	1-104-547-11	FILM CHIP	0.0047uF	5%	16V
C384	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C403	1-104-943-11	ELECT	2.2uF	20%	50V
C404	1-104-943-11	ELECT	2.2uF	20%	50V
C405	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C406	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C407	1-104-951-11	ELECT	10uF	20%	16V
C408	1-104-543-11	FILM CHIP	0.0022uF	5%	50V
C409	1-104-941-11	ELECT	0.47uF	20%	50V
C410	1-104-951-11	ELECT	10uF	20%	16V
C416	1-104-952-11	ELECT	22uF	20%	16V
C420	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C421	1-163-012-00	CERAMIC CHIP	0.0018uF	10%	50V
C422	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C430	1-104-951-11	ELECT	10uF	20%	16V
C431	1-115-175-11	ELECT	100uF	20%	16V
C432	1-104-943-11	ELECT	2.2uF	20%	50V
C433	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C440	1-104-951-11	ELECT	10uF	20%	16V
C441	1-115-175-11	ELECT	100uF	20%	16V
C442	1-104-943-11	ELECT	2.2uF	20%	50V
C443	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C461	1-104-952-11	ELECT	22uF	20%	16V
C462	1-107-823-11	CERAMIC CHIP	0.47uF	10%	16V
C463	1-109-982-11	CERAMIC CHIP	1uF	10%	10V
C465	1-104-951-11	ELECT	10uF	20%	16V
C466	1-104-951-11	ELECT	10uF	20%	16V
C482	1-104-539-11	FILM CHIP	0.001uF	5%	50V
C483	1-104-547-11	FILM CHIP	0.0047uF	5%	16V

Ref. No.	Part No.	Description			Remark
C484	1-104-551-11	FILM CHIP	0.01uF	5%	16V
C500	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C501	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C503	1-163-017-00	CERAMIC CHIP	0.0047uF	5%	50V
C504	1-125-701-11	DOUBLE LAYERS	0.047F		5.5V
C505	1-104-955-11	ELECT	100uF	20%	10V
C506	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C507	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C510	1-104-951-11	ELECT	10uF	20%	16V
C511	1-104-952-11	ELECT	22uF	20%	16V
C513	1-104-951-11	ELECT	10uF	20%	16V
C514	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C515	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C516	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C517	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C518	1-104-951-11	ELECT	10uF	20%	16V
C520	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C530	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C531	1-104-955-11	ELECT	100uF	20%	10V
C532	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C550	1-104-951-11	ELECT	10uF	20%	16V
C551	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C601	1-104-951-11	ELECT	10uF	20%	16V
C602	1-124-229-00	ELECT	33uF	20%	10V
C603	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C604	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C605	1-163-235-11	CERAMIC CHIP	22PF	5%	50V
C606	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C607	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C608	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C609	1-124-229-00	ELECT	33uF	20%	10V
C610	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C611	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C612	1-104-951-11	ELECT	10uF	20%	16V
C613	1-163-021-11	CERAMIC CHIP	0.01uF	10%	50V
C614	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C650	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C651	1-104-951-11	ELECT	10uF	20%	16V
C671	1-104-951-11	ELECT	10uF	20%	16V
C672	1-104-951-11	ELECT	10uF	20%	16V
C673	1-104-951-11	ELECT	10uF	20%	16V
C701	1-111-233-11	ELECT	5600uF	20%	16V
C702	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C703	1-115-334-11	FILM	0.47uF	5%	50V
C704	1-104-953-11	ELECT	47uF	20%	16V
C705	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C706	1-130-471-00	MYLAR	0.001uF	5%	50V
C707	1-130-471-00	MYLAR	0.001uF	5%	50V
C708	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C709	1-115-326-11	FILM	0.1uF	5%	50V
C710	1-126-572-11	ELECT	4.7uF	20%	35V
C711	1-104-953-11	ELECT	47uF	20%	16V
C712	1-104-942-11	ELECT	1uF	20%	50V

Ref. No.	Part No.	Description			Remark
C713	1-104-951-11	ELECT	10uF	20%	16V
C714	1-126-572-11	ELECT	4.7uF	20%	35V
C715	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C720	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C740	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C750	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C760	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C770	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C780	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C781	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C782	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C783	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C784	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C785	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C786	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C787	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C788	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C789	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C801	1-104-955-11	ELECT	100uF	20%	10V
C811	1-104-951-11	ELECT	10uF	20%	16V
C812	1-104-545-11	FILM CHIP	0.0033uF	5%	16V
C813	1-104-545-11	FILM CHIP	0.0033uF	5%	16V
C814	1-104-951-11	ELECT	10uF	20%	16V
C821	1-104-951-11	ELECT	10uF	20%	16V
C822	1-104-545-11	FILM CHIP	0.0033uF	5%	16V
C823	1-104-545-11	FILM CHIP	0.0033uF	5%	16V
C824	1-104-951-11	ELECT	10uF	20%	16V
		< CONNECTOR >			
* CN201	1-506-995-11	PIN, CONNECTOR (PC BOARD) 13P			
CN250	1-766-260-11	CONNECTOR, FFC/FPC (ZIF) 7P			
CN500	1-770-411-11	CONNECTOR, BOARD TO BOARD 20P			
* CN551	1-564-510-11	PLUG, CONNECTOR 7P			
CN600	1-580-907-31	PLUG, CONNECTOR (BUS CONTROL IN)			
CN700	1-774-701-11	PIN, CONNECTOR 16P			
		< JACK >			
CN780	1-774-699-21	JACK, PIN 4P (BUS AUDIO IN, LINE OUT REAR)			
CN781	1-774-699-21	JACK, PIN 4P (LINE OUT FRONT,SUB OUT)			
		< SPARK GAP >			
* CP10	1-517-422-11	GAP, SPARK			
		< DIODE >			
D10	8-719-040-04	DIODE MA721WK-(TX)			
D11	8-719-158-15	DIODE RD5.6S-B			
D12	8-719-977-25	DIODE DTZ9.1C			
D200	8-719-040-04	DIODE MA721WK-(TX)			
D201	8-719-200-82	DIODE 11ES2			
D202	8-719-977-25	DIODE DTZ9.1C			
D250	8-719-404-49	DIODE MA111			

Ref. No.	Part No.	Description	Remark
D501	8-719-056-88	DIODE UDZ-TE-17-11B	
D502	8-719-056-88	DIODE UDZ-TE-17-11B	
D503	8-719-423-32	DIODE MA8120-M	
D504	8-719-423-32	DIODE MA8120-M	
D505	8-719-404-49	DIODE MA111	
D506	8-719-400-20	DIODE MA152WA	
D507	8-719-404-49	DIODE MA111	
D508	8-719-422-64	DIODE MA8062-M	
D509	8-719-422-64	DIODE MA8062-M	
D510	8-719-404-49	DIODE MA111	
D512	8-719-422-64	DIODE MA8062-M	
D513	8-719-422-64	DIODE MA8062-M	
D514	8-719-422-64	DIODE MA8062-M	
D515	8-719-422-64	DIODE MA8062-M	
D516	8-719-422-64	DIODE MA8062-M	
D517	8-719-422-64	DIODE MA8062-M	
D518	8-719-422-64	DIODE MA8062-M	
D519	8-719-422-64	DIODE MA8062-M	
D520	8-719-422-64	DIODE MA8062-M	
D521	8-719-422-64	DIODE MA8062-M	
D522	8-719-422-64	DIODE MA8062-M	
D523	8-719-404-49	DIODE MA111	
D524	8-719-040-04	DIODE MA721WK-(TX)	
D525	8-719-404-49	DIODE MA111	
D530	8-719-067-56	DIODE MA112-TX	
D532	8-719-067-56	DIODE MA112-TX	
D533	8-719-404-49	DIODE MA111	
D534	8-719-404-49	DIODE MA111	
D551	8-719-422-64	DIODE MA8062-M	
D552	8-719-421-36	DIODE MA8036-L	
D601	8-719-022-90	DIODE MA8160M	
D602	8-719-017-94	DIODE MA8180	
D603	8-719-017-94	DIODE MA8180	
D604	8-719-404-49	DIODE MA111	
D605	8-719-422-64	DIODE MA8062-M	
D606	8-719-017-62	DIODE MA8068-L-TX	
D608	8-719-033-43	DIODE RB751H	
D701	8-719-313-73	DIODE SFPB-52	
D702	8-719-313-73	DIODE SFPB-52	
D703	8-719-313-73	DIODE SFPB-52	
D704	8-719-313-73	DIODE SFPB-52	
D705	8-719-313-73	DIODE SFPB-52	
D706	8-719-313-73	DIODE SFPB-52	
D707	8-719-313-73	DIODE SFPB-52	
D708	8-719-313-73	DIODE SFPB-52	
D709	8-719-017-62	DIODE MA8068-L-TX	
D710	8-719-049-38	DIODE 1N5404TU	
D711	8-719-404-49	DIODE MA111	
D712	8-719-200-82	DIODE 11ES2	
D713	8-719-422-76	DIODE MA8075-M	
D714	8-719-801-78	DIODE 1SS184	
D715	8-719-404-49	DIODE MA111	
D716	8-719-158-15	DIODE RD5.6S-B	

MAIN

Ref. No.	Part No.	Description	Remark
D717	8-719-404-49	DIODE MA111	
D718	8-719-313-73	DIODE SFPB-52	
D719	8-719-313-73	DIODE SFPB-52	
		< IC LINK >	
F550	1-533-674-11	LINK, CHIP IC (ICP-S0.5) 0.5A	
		< FERRITE BEAD >	
FB500	1-414-233-22	FERRITE BEAD INDUCTOR	
FB600	1-414-233-22	FERRITE BEAD INDUCTOR	
		< IC >	
IC10	8-759-448-85	IC BU2624FV-E2	
IC201	8-759-823-87	IC LB1638M	
IC250	8-752-079-80	IC CXA2511AQ-T4	
IC301	8-752-078-67	IC CXA1946BQ-T6	
IC302	8-759-700-94	IC NJM5532M	
IC303	8-759-385-17	IC NJM4580E(TE2)	
IC304	8-759-385-17	IC NJM4580E(TE2)	
IC310	8-759-560-22	IC NJM2160M-TE2	
IC320	8-759-385-17	IC NJM4580E(TE2)	
IC350	8-752-083-07	IC CXA1846AN-T4	
IC383	8-759-385-17	IC NJM4580E(TE2)	
IC410	8-759-560-22	IC NJM2160M-TE2	
IC500	8-759-443-72	IC RH5VL43AA-T1	
IC501	8-759-495-76	IC RN5VD33AA-TL	
IC502	8-759-347-50	IC BA3918-V3	
IC503	8-759-540-27	IC TA78DL06AS	
IC600	8-759-563-73	IC MB90574PFV-G-158-BND	
IC602	8-759-449-89	IC BA8270F-E2	
IC650	8-759-530-58	IC MSM6654A-519GS-KR1	
IC700	8-759-486-44	IC TDA7386	
IC800	8-759-537-13	IC NJM2150AV(TE2)	
		< CONNECTOR >	
* J10	1-506-984-11	PIN, CONNECTOR (PC BOARD) 2P	
		< JACK >	
J500	1-566-822-41	JACK (REMOTE IN)	
		< COIL >	
L10	1-414-146-31	INDUCTOR 2.2uH	
L11	1-414-146-31	INDUCTOR 2.2uH	
L12	1-410-204-31	INDUCTOR CHIP 10uH	
L13	1-410-204-31	INDUCTOR CHIP 10uH	
L500	1-410-513-11	INDUCTOR 22uH	
L550	1-414-712-21	INDUCTOR 1mH	
L650	1-410-204-31	INDUCTOR CHIP 10uH	
L700	1-416-712-21	COIL, CHOKE	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q10	8-729-808-02	TRANSISTOR 2SD1622-T-TD	
Q11	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q13	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q14	8-729-421-22	TRANSISTOR UN2211	
Q15	8-729-020-67	TRANSISTOR XN1A312-TX	
Q17	8-729-021-94	FET 2SK1657-T1B	
Q201	8-729-424-59	TRANSISTOR UN2212	
Q202	8-729-020-67	TRANSISTOR XN1A312-TX	
Q203	8-729-016-11	TRANSISTOR 2SD1507M	
Q204	8-729-106-60	TRANSISTOR 2SB1115A	
Q250	8-729-424-59	TRANSISTOR UN2212	
Q330	8-729-400-55	TRANSISTOR 2SD1328-S	
Q340	8-729-400-55	TRANSISTOR 2SD1328-S	
Q351	8-729-424-52	TRANSISTOR UN211F-TX	
Q352	8-729-424-52	TRANSISTOR UN211F-TX	
Q353	8-729-021-93	TRANSISTOR UPA502T-T1	
Q360	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q361	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q362	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q430	8-729-400-55	TRANSISTOR 2SD1328-S	
Q440	8-729-400-55	TRANSISTOR 2SD1328-S	
Q460	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q461	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q462	8-729-021-95	TRANSISTOR RN1441-A(TE85L)	
Q501	8-729-020-67	TRANSISTOR XN1A312-TX	
Q503	8-729-424-59	TRANSISTOR UN2212	
Q504	8-729-016-11	TRANSISTOR 2SD1507M	
Q505	8-729-020-67	TRANSISTOR XN1A312-TX	
Q506	8-729-016-11	TRANSISTOR 2SD1507M	
Q507	8-729-020-67	TRANSISTOR XN1A312-TX	
Q508	8-729-216-22	TRANSISTOR 2SA1162-G	
Q509	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q510	8-729-015-74	TRANSISTOR UN5111	
Q511	8-729-015-74	TRANSISTOR UN5111	
Q512	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q550	8-729-822-84	TRANSISTOR 2SB1202FAST	
Q551	8-729-421-22	TRANSISTOR UN2211	
Q600	8-729-424-59	TRANSISTOR UN2212	
Q601	8-729-424-59	TRANSISTOR UN2212	
Q602	8-729-403-35	TRANSISTOR UN5113	
Q603	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q700	8-729-901-47	TRANSISTOR DTA143EK	
Q701	8-729-144-85	FET 2SK1133	
Q702	8-729-021-94	FET 2SK1675-T1B	
Q703	8-729-424-59	TRANSISTOR UN2212	
Q705	8-729-230-49	TRANSISTOR 2SC2712-YG	
		< RESISTOR >	
R9	1-208-437-61	RES,CHIP 1K 2% 1/10W	
R10	1-208-437-61	RES,CHIP 1K 2% 1/10W	

Ref. No.	Part No.	Description			Remark
R11	1-216-037-00	METAL CHIP	330	5%	1/10W
R12	1-208-462-61	RES,CHIP	10K	2%	1/10W
R15	1-208-437-61	RES,CHIP	1K	2%	1/10W
R19	1-208-437-61	RES,CHIP	1K	2%	1/10W
R20	1-208-518-61	RES,CHIP	22K	2%	1/10W
R21	1-208-518-61	RES,CHIP	22K	2%	1/10W
R22	1-208-462-61	RES,CHIP	10K	2%	1/10W
R23	1-208-462-61	RES,CHIP	10K	2%	1/10W
R25	1-216-089-00	RES,CHIP	47K	5%	1/10W
R26	1-216-833-11	METAL CHIP	10K	5%	1/16W
R27	1-216-845-11	METAL CHIP	100K	5%	1/16W
R30	1-216-025-00	RES,CHIP	100	5%	1/10W
R32	1-208-462-61	RES,CHIP	10K	2%	1/10W
R34	1-208-462-61	RES,CHIP	10K	2%	1/10W
R35	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R36	1-208-437-61	RES,CHIP	1K	2%	1/10W
R50	1-208-800-11	RES,CHIP	5.6K	2%	1/10W (E)
R50	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W (US)
R51	1-208-810-11	RES,CHIP	15K	2%	1/10W (E)
R51	1-216-677-11	METAL CHIP	12K	0.5%	1/10W (US)
R60	1-216-097-00	RES,CHIP	100K	5%	1/10W (E)
R60	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W (US)
R80	1-216-097-00	RES,CHIP	100K	5%	1/10W (E)
R80	1-216-673-11	METAL CHIP	8.2K	0.5%	1/10W (US)
R201	1-216-150-00	RES,CHIP	10	5%	1/8W
R202	1-216-150-00	RES,CHIP	10	5%	1/8W
R203	1-216-150-00	RES,CHIP	10	5%	1/8W
R204	1-216-150-00	RES,CHIP	10	5%	1/8W
R205	1-208-462-61	RES,CHIP	10K	2%	1/10W
R206	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R207	1-216-198-00	RES,CHIP	1K	5%	1/8W
R209	1-216-089-00	RES,CHIP	47K	5%	1/10W
R230	1-216-097-00	RES,CHIP	100K	5%	1/10W
R231	1-216-097-00	RES,CHIP	100K	5%	1/10W
R232	1-208-760-11	RES,CHIP	120	2%	1/10W
R233	1-218-764-11	RES,CHIP	330K	2%	1/10W
R234	1-208-812-11	RES,CHIP	18K	2%	1/10W
R235	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R240	1-216-097-00	RES,CHIP	100K	5%	1/10W
R241	1-216-097-00	RES,CHIP	100K	5%	1/10W
R242	1-208-760-11	RES,CHIP	120	2%	1/10W
R243	1-218-764-11	RES,CHIP	330K	2%	1/10W
R244	1-208-812-11	RES,CHIP	18K	2%	1/10W
R245	1-216-677-11	METAL CHIP	12K	0.5%	1/10W
R250	1-208-812-11	RES,CHIP	18K	2%	1/10W
R251	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W

Ref. No.	Part No.	Description			Remark
R252	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R253	1-216-113-00	METAL CHIP	470K	5%	1/10W
R254	1-216-089-00	RES,CHIP	47K	5%	1/10W
R301	1-208-462-61	RES,CHIP	10K	2%	1/10W
R302	1-208-462-61	RES,CHIP	10K	2%	1/10W
R303	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R304	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R305	1-216-079-00	METAL CHIP	18K	5%	1/10W
R306	1-208-810-11	RES,CHIP	15K	2%	1/10W
R307	1-216-025-00	RES,CHIP	100	5%	1/10W
R320	1-208-462-61	RES,CHIP	10K	2%	1/10W
R321	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R330	1-208-437-61	RES,CHIP	1K	2%	1/10W
R331	1-216-082-00	METAL CHIP	24K	5%	1/10W
R332	1-216-086-00	METAL CHIP	36K	5%	1/10W
R333	1-208-774-11	RES,CHIP	470	0.5%	1/10W
R334	1-208-518-61	RES,CHIP	22K	2%	1/10W
R335	1-208-437-61	RES,CHIP	1K	2%	1/10W
R336	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R340	1-208-437-61	RES,CHIP	1K	2%	1/10W
R341	1-216-082-00	METAL CHIP	24K	5%	1/10W
R342	1-216-086-00	METAL CHIP	36K	5%	1/10W
R343	1-208-774-11	RES,CHIP	470	0.5%	1/10W
R344	1-208-518-61	RES,CHIP	22K	2%	1/10W
R345	1-208-437-61	RES,CHIP	1K	2%	1/10W
R346	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R350	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R351	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R352	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R353	1-216-298-00	METAL CHIP	2.2	5%	1/10W
R355	1-216-105-00	RES,CHIP	220K	5%	1/10W
R356	1-216-105-00	RES,CHIP	220K	5%	1/10W
R360	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R362	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R363	1-208-462-61	RES,CHIP	10K	2%	1/10W
R364	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R365	1-208-518-61	RES,CHIP	22K	2%	1/10W
R382	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R383	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R384	1-208-437-61	RES,CHIP	1K	2%	1/10W
R386	1-208-810-11	RES,CHIP	15K	2%	1/10W
R387	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R388	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R401	1-208-462-61	RES,CHIP	10K	2%	1/10W
R402	1-208-462-61	RES,CHIP	10K	2%	1/10W
R403	1-208-462-61	RES,CHIP	10K	2%	1/10W
R404	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R405	1-216-079-00	METAL CHIP	18K	5%	1/10W
R406	1-208-810-11	RES,CHIP	15K	2%	1/10W
R407	1-216-025-00	RES,CHIP	100	5%	1/10W
R420	1-208-462-61	RES,CHIP	10K	2%	1/10W
R421	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R422	1-208-462-61	RES,CHIP	10K	2%	1/10W

MAIN

Ref. No.	Part No.	Description			Remark
R423	1-208-462-61	RES,CHIP	10K	2%	1/10W
R430	1-208-437-61	RES,CHIP	1K	2%	1/10W
R431	1-216-082-00	METAL CHIP	24K	5%	1/10W
R432	1-216-086-00	METAL CHIP	36K	5%	1/10W
R433	1-208-774-11	RES,CHIP	470	0.5%	1/10W
R434	1-208-518-61	RES,CHIP	22K	2%	1/10W
R435	1-208-437-61	RES,CHIP	1K	2%	1/10W
R436	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R440	1-208-437-61	RES,CHIP	1K	2%	1/10W
R441	1-216-082-00	METAL CHIP	24K	5%	1/10W
R442	1-216-086-00	METAL CHIP	36K	5%	1/10W
R443	1-208-774-11	RES,CHIP	470	0.5%	1/10W
R444	1-208-518-61	RES,CHIP	22K	2%	1/10W
R445	1-208-437-61	RES,CHIP	1K	2%	1/10W
R446	1-216-663-11	METAL CHIP	3.3K	0.5%	1/10W
R460	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R462	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R463	1-208-462-61	RES,CHIP	10K	2%	1/10W
R464	1-216-635-11	METAL CHIP	220	0.5%	1/10W
R465	1-208-518-61	RES,CHIP	22K	2%	1/10W
R482	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R483	1-208-453-61	RES,CHIP	4.7K	2%	1/10W
R484	1-208-437-61	RES,CHIP	1K	2%	1/10W
R486	1-208-810-11	RES,CHIP	15K	2%	1/10W
R487	1-216-671-11	METAL CHIP	6.8K	0.5%	1/10W
R488	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R500	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R501	1-216-097-00	RES,CHIP	100K	5%	1/10W
R503	1-208-462-61	RES,CHIP	10K	2%	1/10W
R504	1-208-437-61	RES,CHIP	1K	2%	1/10W
R505	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R506	1-208-462-61	RES,CHIP	10K	2%	1/10W
R507	1-216-067-00	METAL CHIP	5.6K	5%	1/10W
R508	1-216-097-00	RES,CHIP	100K	5%	1/10W
R509	1-216-097-00	RES,CHIP	100K	5%	1/10W
R510	1-216-097-00	RES,CHIP	100K	5%	1/10W
R511	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R512	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R514	1-216-089-00	RES,CHIP	47K	5%	1/10W
R515	1-208-462-61	RES,CHIP	10K	2%	1/10W
R516	1-216-097-00	RES,CHIP	100K	5%	1/10W
R517	1-216-097-00	RES,CHIP	100K	5%	1/10W
R518	1-216-025-00	RES,CHIP	100	5%	1/10W
R519	1-216-025-00	RES,CHIP	100	5%	1/10W
R530	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R531	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R532	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R533	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R550	1-216-089-00	RES,CHIP	47K	5%	1/10W
R551	1-208-449-61	RES,CHIP	3.3K	2%	1/10W
R552	1-216-025-00	RES,CHIP	100	5%	1/10W
R601	1-216-845-11	METAL CHIP	100K	5%	1/16W
R602	1-216-839-11	METAL CHIP	33K	5%	1/16W
R607	1-216-097-00	RES,CHIP	100K	5%	1/10W
R608	1-216-845-11	METAL CHIP	100K	5%	1/16W
R609	1-216-097-00	RES,CHIP	100K	5%	1/10W
R610	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R611	1-216-105-00	RES,CHIP	220K	5%	1/10W
R613	1-208-437-61	RES,CHIP	1K	2%	1/10W
R614	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R615	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W
R616	1-208-437-61	RES,CHIP	1K	2%	1/10W
R617	1-216-097-00	RES,CHIP	100K	5%	1/10W
R618	1-216-097-00	RES,CHIP	100K	5%	1/10W
R619	1-216-097-00	RES,CHIP	100K	5%	1/10W
R620	1-216-097-00	RES,CHIP	100K	5%	1/10W
R621	1-216-097-00	RES,CHIP	100K	5%	1/10W
R622	1-216-097-00	RES,CHIP	100K	5%	1/10W
R623	1-216-097-00	RES,CHIP	100K	5%	1/10W
R624	1-216-097-00	RES,CHIP	100K	5%	1/10W
R625	1-216-001-00	METAL CHIP	10	5%	1/10W
R626	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R627	1-208-462-61	RES,CHIP	10K	2%	1/10W
R628	1-216-025-00	RES,CHIP	100	5%	1/10W
R629	1-216-025-00	RES,CHIP	100	5%	1/10W
R630	1-216-089-00	RES,CHIP	47K	5%	1/10W
R631	1-208-437-61	RES,CHIP	1K	2%	1/10W
R632	1-216-815-11	METAL CHIP	330	5%	1/16W
R633	1-216-097-00	RES,CHIP	100K	5%	1/10W
R634	1-216-097-00	RES,CHIP	100K	5%	1/10W
R635	1-216-097-00	RES,CHIP	100K	5%	1/10W
R636	1-216-097-00	RES,CHIP	100K	5%	1/10W
R637	1-216-085-00	METAL CHIP	33K	5%	1/10W
R638	1-208-462-61	RES,CHIP	10K	2%	1/10W
R639	1-208-462-61	RES,CHIP	10K	2%	1/10W
R640	1-216-089-00	RES,CHIP	47K	5%	1/10W
R641	1-216-295-00	SHORT	0		
R651	1-216-097-00	RES,CHIP	100K	5%	1/10W
R652	1-216-845-11	METAL CHIP	100K	5%	1/16W
R656	1-216-845-11	METAL CHIP	100K	5%	1/16W
R659	1-216-295-00	SHORT	0		
R660	1-208-437-61	RES,CHIP	1K	2%	1/10W
R661	1-208-437-61	RES,CHIP	1K	2%	1/10W
R662	1-208-437-61	RES,CHIP	1K	2%	1/10W
R663	1-208-437-61	RES,CHIP	1K	2%	1/10W
R671	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R672	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R673	1-208-806-11	RES,CHIP	10K	0.50%	1/10W
R701	1-216-222-00	RES,CHIP	10K	5%	1/8W
R702	1-216-206-00	RES,CHIP	2.2K	5%	1/8W
R703	1-208-437-61	RES,CHIP	1K	2%	1/10W
R704	1-216-017-00	RES,CHIP	47	5%	1/10W
R705	1-208-810-11	RES,CHIP	15K	2%	1/10W
R706	1-216-089-00	RES,CHIP	47K	5%	1/10W
R707	1-216-121-00	RES,CHIP	1M	5%	1/10W
R708	1-216-659-11	METAL CHIP	2.2K	0.5%	1/10W

Ref. No.	Part No.	Description			Remark
R709	1-216-295-00	SHORT	0		
R710	1-216-222-00	RES,CHIP	10K	5%	1/8W
R712	1-216-085-00	METAL CHIP	33K	5%	1/10W
R713	1-216-089-00	RES,CHIP	47K	5%	1/10W
R714	1-216-089-00	RES,CHIP	47K	5%	1/10W
R780	1-208-437-61	RES,CHIP	1K	2%	1/10W
R781	1-208-437-61	RES,CHIP	1K	2%	1/10W
R812	1-208-813-11	RES,CHIP	20K	0.50%	1/10W
R813	1-208-813-11	RES,CHIP	20K	0.50%	1/10W
R822	1-208-813-11	RES,CHIP	20K	0.50%	1/10W
R823	1-208-813-11	RES,CHIP	20K	0.50%	1/10W
		< NETWORK RESISTOR >			
RB601	1-233-412-11	RES, CHIP NETWORK	1.0K	(3216)	
RB602	1-233-412-11	RES, CHIP NETWORK	1.0K	(3216)	
		< CERMET RESISTOR >			
RV230	1-238-090-11	RES, ADJ, CERMET	10K		
RV240	1-238-090-11	RES, ADJ, CERMET	10K		
		< SWITCH >			
S600	1-571-478-11	SWITCH, SLIDE (POWER SELECT)			
S601	1-571-478-11	SWITCH, SLIDE (FREQUENCY SELECT) (E)			
S700	1-571-478-11	SWITCH, SLIDE (POWER AMP) (E)			
SW500	1-762-108-31	SWITCH, PUSH (1 KEY) (NOSE DET)			
		< THERMISTOR (POSITIVE) >			
TH600	1-801-792-21	THERMISTOR, POSITIVE			
		< VIBRATOR >			
X10	1-760-838-21	VIBRATOR, CRYSTAL (7.2MHz)			
X600	1-767-833-21	VIBRATOR, CERAMIC (3.68MHz)			
X601	1-567-098-41	VIBRATOR, CRYSTAL (32.768kHz)			
X650	1-577-101-11	VIBRATOR, CERAMIC (4.19MHz)			
**********					
*	1-669-656-12	SUB BOARD			
		**********			
		< CAPACITOR >			
C810	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C811	1-162-558-11	CERAMIC	100PF	10%	2KV
		< CONNECTOR >			
CN800	1-779-170-11	SOCKET, CONNECTOR 20P			
CN801	1-779-169-11	SOCKET, CONNECTOR 18P			
CN802	1-778-330-21	PIN, CONNECTOR (PC BOARD) 2P			
		< DIODE >			
D810	8-719-158-15	DIODE RD5.6SB			
LED800	8-719-058-14	LED CL-220PG-C-TS (TAPE WINDOW)			
LED802	8-719-038-07	LED CL-190PG-CD-T (⏏)			

Ref. No.	Part No.	Description			Remark
		< RESISTOR >			
R800	1-216-049-11	RES,CHIP	1K	5%	1/10W
R801	1-216-025-00	RES,CHIP	100	5%	1/10W
R802	1-216-025-00	RES,CHIP	100	5%	1/10W
R803	1-216-025-00	RES,CHIP	100	5%	1/10W
R804	1-216-025-00	RES,CHIP	100	5%	1/10W
R806	1-216-025-00	RES,CHIP	100	5%	1/10W
R807	1-216-025-00	RES,CHIP	100	5%	1/10W
R808	1-216-025-00	RES,CHIP	100	5%	1/10W
R809	1-216-025-00	RES,CHIP	100	5%	1/10W
		< SWITCH >			
SW800	1-572-921-11	SWITCH, KEY BOARD (RESET)			
SW801	1-771-027-11	SWITCH, KEY BOARD (WITH LED) (⏏)			

REVISION HISTORY

Clicking the version allows you to jump to the revised page.
Also, clicking the version at the upper on the revised page allows you to jump to the next revised page.

Ver.	Date	Description of Revision
1.1	2001. 08	The CORRECTION-1 is included into Ver 1.1
1.0	1998. 06	New